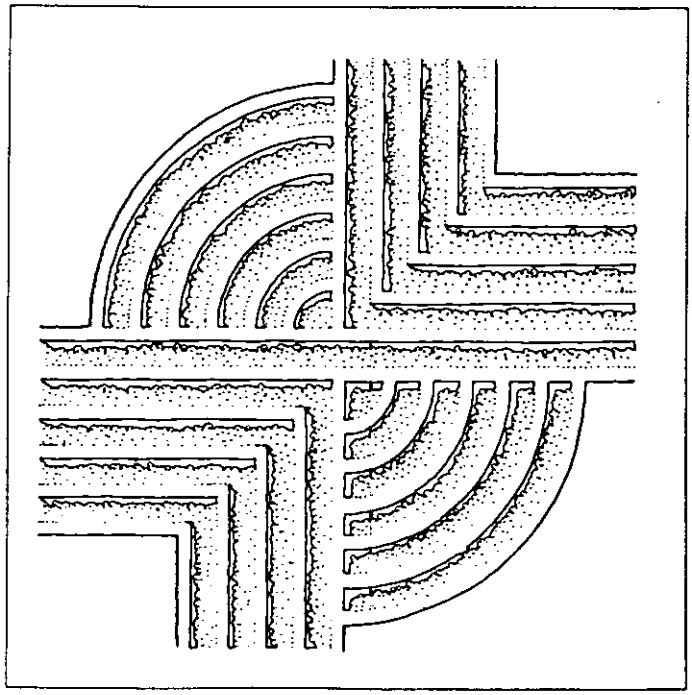
INTENSIVE ARCHAEOLOGICAL SURVEY OF THE SECESSIONVILLE NORTH TRACT, JAMES ISLAND, CHARLESTON COUNTY SOUTH CAROLINA



CHICORA RESEARCH CONTRIBUTION 195

INTENSIVE ARCHAEOLOGICAL SURVEY OF THE SECESSIONVILLE NORTH TRACT, JAMES ISLAND, CHARLESTON COUNTY, SOUTH CAROLINA

Prepared By:
Michael Trinkley, Ph.D.

Prepared For:
Mr. Miles Martschink
Martschink Realty Corporation
PO Box 581
Charleston, SC 29407

CHICORA RESEARCH CONTRIBUTION 195

Chicora Foundation, Inc.
P.O. Box 8664 ▫ 861 Arbutus Drive
Columbia, South Carolina 29202-8664
803/787-6910
Email: chicora1@aol.com

August 16, 1996

This report is prepared on permanent, recycled paper ∞

ABSTRACT

This study was conducted at the request of Mr. Miles Martschink of Martschink Realty of Charleston, South Carolina. The study tract consists of the portion of the Secessionville peninsula north of what is known as Fort Lamar Road (S-385), and is situated on the southern edge of James Island, between Seaside Creek to the north and Secessionville Creek to the south.

The study included an intensive archaeological survey of the 30 acre tract, as well as background research which included very brief historical examination of resources at the Charleston Register of Mesne Conveyances and the South Carolina Historical Society, examination of the site files at the South Carolina Institute of Archaeology and Anthropology, and a request for information from the South Carolina Department of Archives and History.

As a result of these investigations four previously recorded sites, 38CH1458, 38CH1459, 38CH1460, and 38CH1461, were identified on the study tract. The survey did not incorporate the portion of the tract on which 38CH1457 and 38CH1462 are situated and these sites have not been assessed by this work.

Archaeological site **38CH1458** represents a diffuse and ephemeral scatter of Woodland artifacts intermixed with nineteenth century remains. These historic remains, occurring less commonly than the prehistoric pottery, have no clear concentrations. This site is recommended by this study to be not eligible for inclusion on the National Register of Historic Places, pending the concurrence of the State Historic Preservation Office.

Archaeological site **38CH1459** is represented primarily by a light scatter of primarily nineteenth century historic remains, although a few prehistoric artifacts were also recovered. This site may actually represent smear or dispersion of historic materials associated with the adjacent Fort Lamar earthworks, situated outside the study tract. This site is also recommended as not eligible for inclusion on the National Register.

Archaeological site **38CH1460**, which represents a rather dense historic site with only a light smear of prehistoric remains, is situated in a heavily overgrown portion of the study tract adjacent to Fort Lamar Road. Likely the location of the early nineteenth century slave settlement associated with the Stent and Rivers plantations, this site is recommended as potentially eligible for inclusion on the National Register of Historic Places and additional archaeological testing is recommended.

Archaeological site **38CH1461** represents a second small and ephemeral prehistoric scatter mixed with nineteenth century historic remains. Like 38CH1458 and 38CH1459, the site appears heavily plowed and is recommended as not eligible for inclusion on the National Register of Historic Places. No further research or documentation is recommended for this particular site, pending the concurrence of the State Historic Preservation Office.

As always, it is possible that additional, but unidentified, resources may exist on the survey tract. Consequently, Martschink Realty is cautioned that if any archaeological or historical remains are identified during construction, all work should immediately cease and the identified remains should be reported to either Chicora Foundation or the State Historic Preservation Office.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

INTRODUCTION

Background

This investigation was conducted by Dr. Michael Trinkley of Chicora Foundation, Inc. for Mr. Miles Martschink of Martschink Realty Company of Charleston, South Carolina. Martschink Realty is currently anticipating the development of approximately 30 acres of the Secessionville tract north of Fort Lamar Road (S-385) on James Island in Charleston County, South Carolina (Figure 1).

The development's preliminary plans involve creating relatively large lots for single family homes. Given the layout of the property this will likely require access roads to open some sections of the tract. The proposed undertaking will involve clearing and grubbing for roads and utility rights-of-way, as well as the clearing for the construction of homes in some areas. Other areas have been cultivated fields for a number of years and no clearing or grubbing will be required. This parcel is bounded to the west by a preservation easement established for the Civil War fortification known as Fort Lamar (designated 38CH1271), to the south by Fort Lamar Road (S-385), to the north by the marshes of Seaside Creek, and to the east by an artificial property line which separates the tract from approximately 11 acres which is already under contract to an individual and is therefore not incorporated into this study.

This work will clearly have the potential to impact any archaeological sites which might be present in the project area. Consequently, Chicora Foundation was retained to conduct this intensive archaeological survey to allow the developer to obtain S.C. Coastal Council certification. This study is intended to provide an overview of the archival research and the archaeological survey of the tract sufficient to allow the S.C. State Historic Preservation Office to determine the eligibility of sites for inclusion on the National Register of Historic Places.

In addition, this study will provide a detailed explanation of the archaeological survey of the parcel, and the findings. The statewide archaeological site files held by the South Carolina Institute of Archaeology and Anthropology (SCIAA) were examined for information pertinent to the project area. Several previously recorded archaeological sites in the project area were identified and will be discussed in a subsequent section. No additional sites were encountered. Chicora Foundation initiated contact with the South Carolina State Historic Preservation Office (SHPO) concerning any National Register buildings, districts, structures, sites, or objects in the project area, as well as the results of any structures surveys on file with that office on June 25. No response has yet been received from that office and, given the time constraints of this project, this study has been completed absent that information from the S.C. SHPO.

The archaeological survey was conducted by Dr. Michael Trinkley intermittently during the month of July 1996. The survey field crew consisted of Ian Hamer, John Hamer, Hollis Lawrence and Scott Sutton. Field work conditions were good over most of the tract, although the eastern-most edge (where 38CH1460 was encountered) was heavily overgrown, limiting mobility and visibility. A total of 96 person hours were devoted to the study. Historical research was conducted on August 8. The sites were recorded at SCIAA on August 5 and the laboratory process of the collections was conducted at the Chicora Foundation laboratories on August 5.

Goals

The primary goals of this study were, first, to identify the archaeological resources of the tract and, second, to assess the ability of these sites to contribute significant archaeological, historical or anthropological data. The second aspect essentially involves the sites' eligibility for inclusion in the

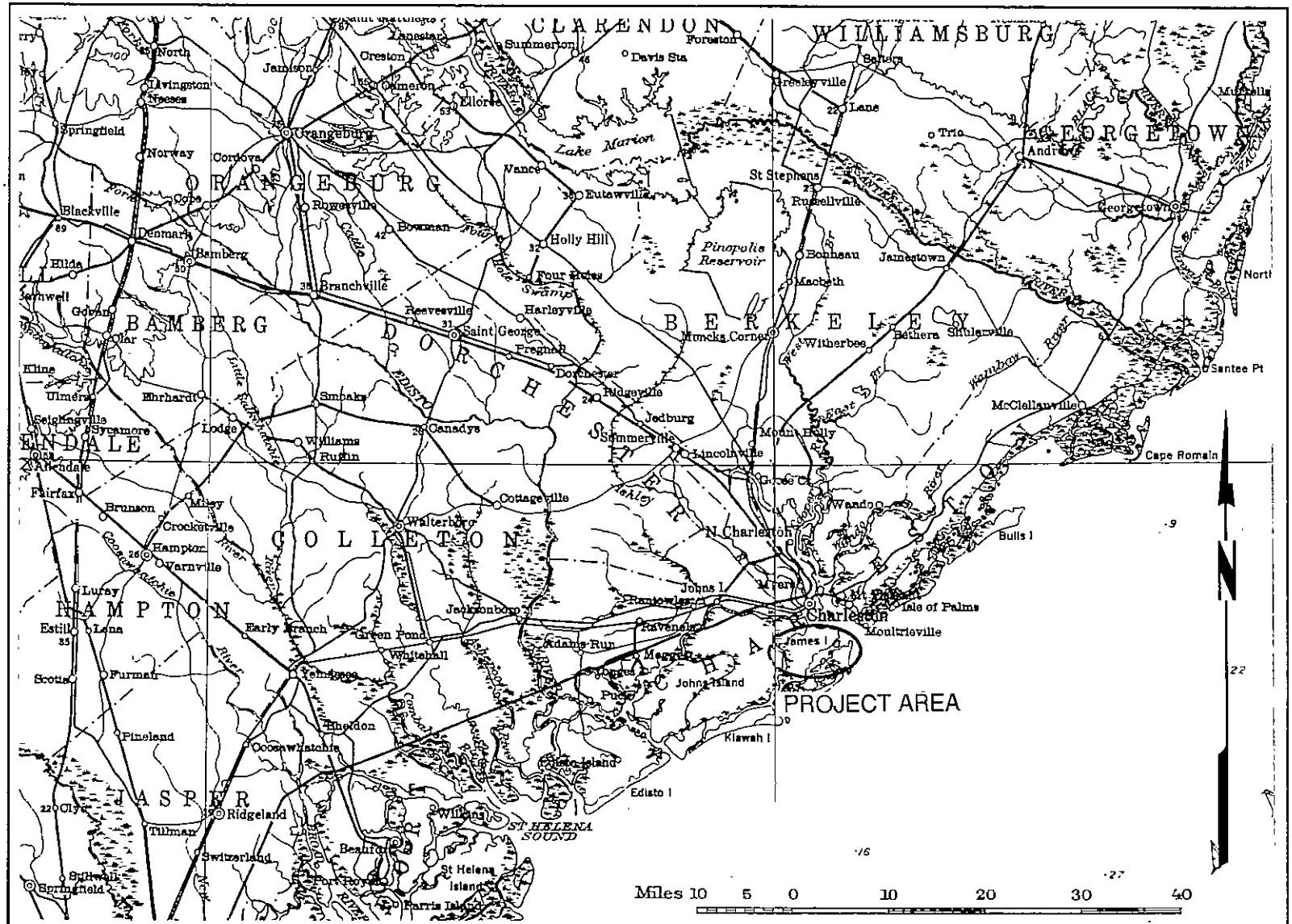


Figure 1. Location of the Secessionville North project in the Charleston County area.

FIGURE NOT AVAILABLE

Figure 2. Vicinity of the Secessionville North survey tract on southern James Island.

National Register of Historic Places, although Chicora Foundation only provides an opinion of National Register eligibility and the final determination is made by the lead compliance agency in consultation with the State Historic Preservation Officer at the South Carolina Department of Archives and History.

A secondary goal was to explore the previously established association of the project area with Fort Lamar, a Civil War earthwork of considerable importance in the defense of Charleston (see, for example, Burton's [1970:98] observation's considering the consequences of a Union victory). Several excellent historical synopses are available for Secessionville (see Butler 1994 and Côté 1995).

Curation

The field notes and artifacts from Chicora's survey of the north portion of Secessionville have been curated at the South Carolina Institute of Archaeology and Anthropology (SCIAA). The artifacts have been cleaned and/or conserved as necessary and have been curated using the SCIAA site numbers following that institution's provenience system. All original records and duplicate records were provided to the curatorial facility on pH neutral, alkaline buffered paper. The only photographic materials present were a series of color prints intended for use in this survey. Since these materials cannot be processed to archival standards, they have been temporarily retained by Chicora Foundation, Inc.

EXTANT ENVIRONMENT

Physiography

Charleston County is located in the lower Atlantic Coastal Plain of South Carolina and is bounded to the east by the Atlantic Ocean and a series of marsh, barrier, and sea islands (Mathews et al. 1980:133). Elevations in the County range from sea level to about 70 feet above mean sea level (AMSL).

In the project area elevations range from about 5 to 10 feet AMSL (Figure 3). It forms a peninsula, which while very constructed to the west, widens in the project area, becoming about 3200 feet in width. In general, the area is very level, representing a slightly elevated sand ridge running roughly east-west. The topography slopes to the north, toward the marshes of Seaside Creek, and to the south, toward the marshes of Secessionville Creek.

The project area is situated entirely to the north of a paved road, known locally as Fort Lamar Road, which bisects the peninsula. To the south of this road is a tract previously surveyed by Butler (1994), on which two sites were encountered, 38CH1271 and 38CH1456. North of the survey tract is the tidal marsh associated with Seaside Creek, which drains eastward into Clark Sound. The tract is nearly divided into two uneven portions by a small marsh slough which cuts southwestwardly into the tract from these marshes. Another slough, draining northward, forms the eastern limit of the survey area. The western boundary, arbitrarily defined by a dense woodsline, separates the study tract from the Civil War earthworks known as Fort Lamar.

The project area is typical of James Island which consists of large sandy plains interrupted by marsh and tidal creeks. The mainland topography, which consists of similar subtle ridge and bay undulations, is characteristic of beach ridge plains. Seven major drainages are found in Charleston County. Four of these, the Wando, Ashley, Stono, and North Edisto, are dominated by tidal flows and are saline. The three with significant freshwater flow are the Santee, forming the northern boundary of the County, the South Edisto, forming the southern boundary, and the Cooper, which bisects the County. Because of the low topography, many broad, low-gradient drains are present as either extensions of the tidal rivers or as flooded bays and swales. Examples of these are present in the project area, and include the slough found near the eastern boundary.

Geology and Soils

Coastal Plain geological formations are unconsolidated sedimentary deposits of very recent age (Pleistocene and Holocene) lying unconformably on ancient crystalline rocks (Cooke 1936; Miller 1971:74). The Pleistocene sediments are organized into topographically distinct, but lithologically similar, geomorphic units, or terraces, parallel to the coast. The project area is identified by Cooke (1936) as part of the Pamlico terrace, which includes the land between the recent shore and an abandoned shore line about 25 feet AMSL. Cooke (1936:7) notes that evidence of ancient beaches and swales can still be seen in the Pamlico formation and this likely contributed to the ridge and trough topography present in much of the area.

Within the coastal zone the soils are Holocene and Pleistocene in age and were formed from materials that were deposited during the various stages of coastal submergence. The formation of soils in the study area is affected by this parent material (primarily sands and clays), the temperate climate, the various soil organisms, topography, and time.

The mainland soils are Pleistocene in age and tend to have more distinct horizon development and diversity than the younger soils

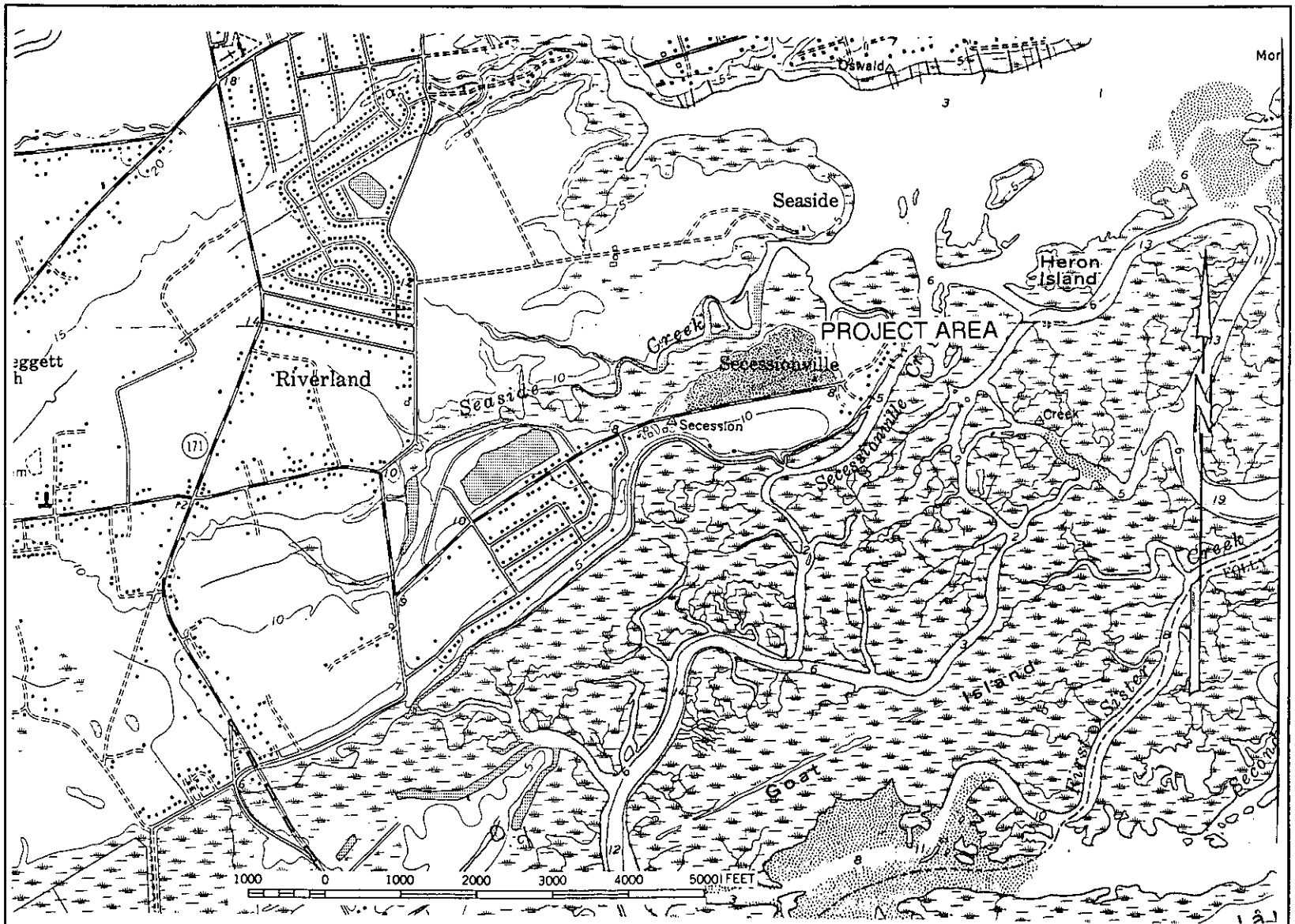


Figure 3. Portion of the James Island 7.5' USGS topographic map showing the project area.

of the sea and barrier islands. Sandy to loamy soils predominate in the level to gently sloping mainland areas. The island soils are less diverse and less well developed, frequently lacking a well-defined B horizon. Organic matter is low and the soils tend to be acidic. The Holocene deposits typical of barrier islands and found as a fringe on some sea islands, consist almost entirely of quartz sand which exhibits little organic matter. Tidal marsh soils are Holocene in age and consist of fine sands, clay, and organic matter deposited over older Pleistocene sands. The soils are frequently covered by up to 2 feet of saltwater during high tides. Historically, marsh soils have been used as compost or fertilizer for a variety of crops, including cotton (Hammond 1884:510) and Allston mentions that the sandy soil of the coastal region, "bears well the admixture of salt and marsh mud with the compost" (Allston 1854:13).

Only two soil series occur in the project area: Seabrook loamy fine sands and Wando loamy fine sands. The Wando soils dominate the area, with the Seabrook soils found only in the southeastern quadrant of the project area, primarily adjacent to Fort Lamar Road (Miller 1971: Maps 69 and 70). The Seabrook soils typically have an Ap horizon about 0.8 foot in depth which consists of a very dark grayish-brown (10YR3/2) loamy fine sand overlying a C1 horizon of dark-brown (10YR4/3) sand to a depth of about 1.8 feet (Miller 1971:27). The Wando soils present a very similar profile with an Ap horizon of dark brown (10YR4/3) sand to 0.8 foot overlying a C1 horizon of brown (7.5YR5/4) sand to about 2.8 feet (Miller 1971:30). The primary difference between the two is that the Wando soils are excessively drained while the Seabrook soils are moderately well drained. In addition, the Seabrook soils tend to be more acidic than the Wando soils.

Climate

John Lawson described South Carolina in 1700 as having, "a sweet Air, moderate Climate, and fertile Soil" (Lefler 1967:86). Of course, Lawson tended to romanticize Carolina. In December 1740 Robert Pringle remarked that Charleston was having "hard frosts & Snow" characterized as "a great Detriment to the Negroes" (Edgar 1972:282), while in May 1744 Pringle states, "the weather having already Come in very hott" (Edgar 1972:685).

The major climatic controls of the area are latitude, elevation, distance from the ocean, and location with respect to the average tracks of migratory cyclones. Charleston's latitude of 32°37'N places it on the edge of the balmy subtropical climate typical of Florida, further south. As a result, there are relatively short, mild winters and long, warm, humid summers. The large amount of nearby warm ocean water surface produces a marine climate, which tends to moderate both the cold and hot weather. The Appalachian Mountains, about 220 miles to the northwest, block the shallow cold air masses from the northwest, moderating them before they reach the sea islands (Mathews et al. 1980:46).

The average high temperature in the Charleston in July is 81°F, although temperatures are frequently in the 90s during much of July (Kjerfve 1975:C-4). Mills noted:

> in the months of June, July, and August, 1752, the weather in Charleston was warmer than any of the inhabitants before had ever experienced. The mercury in the shade often rose above 90°, and for nearly twenty successive days varied between that an 101° (Mills 1972:444).

The area normally experiences a high relative humidity, adding greatly to the discomfort. Kjerfve (1975:C-5) found an annual mean value of 73.5% RH, with the highest levels occurring during the summer. Pringle remarked in 1742 that guns "sufferr'd with the Rust by Lying so Long here, & which affects any Kind of Iron Ware, much more in this Climate than in Europe" (Edgar 1972:465).

The annual rainfall in this portion of Charleston is about 49 inches, fairly evenly spaced over the year. While adequate for most crops, there may be periods of both excessive rain and drought. The Charleston area has recorded up to 20 inches of rain in a single month and the rainfall

Figure 4. Cultivated fields in the project area.

over a three month period has exceeded 30 inches no less than nine times in the past 37 years. Likewise, periods of draught can occur and cause considerable damage to crops and livestock. Mills remarks that the "Summer of 1728 was uncommonly hot; the face of the earth was completely parched; the pools of standing water dried up, and the field reduced to the greatest distress" (Mills 1972:447-448). Another significant historical drought occurred in 1845, affecting both the Low and Up Country.

The annual growing season is 295 days, one of the longest in South Carolina. This mild climate, adequate rainfall, and long growing season, as Hilliard (1984:13) notes, is largely responsible for the presence of many southern crops, such as cotton and sugar cane.

Floristics

The area of the study tract exhibits two major ecosystems: the maritime forest ecosystem which consists of the upland forest areas, and the estuarine ecosystem of deep water tidal habitats (Sandifer et al. 1980:7-9).

The maritime forest ecosystem has been found to consist of five principal forest types, including the Oak-Pine forests, the Mixed Oak Hardwood forests, the Palmetto forests, the Oak thickets, and other miscellaneous wooded areas (such as salt marsh thickets and wax myrtle thickets).

Of these the Oak-Pine forests are most common, constituting large areas of Charleston's original forest community. In some areas palmetto becomes an important sub-dominant. Typically these forests are dominated by the laurel oak with pine (primarily loblolly with minor amounts of longleaf pine) as the major canopy co-dominant. Hickory is present, although uncommon. Other trees found are the sweet gum and magnolia, with sassafras, red bay, American holly, and wax myrtle and palmetto found in the understory.

Mills, in the early nineteenth century, remarked that:

> South Carolina is rich in native and exotic productions; the varieties of its soil, climate, and geological positions, afford plants of rare, valuable, and medicinal qualities; fruits of a luscious, refreshing, and nourishing nature; vines and shrubs of exquisite beauty, fragrance, and luxuriance, and forest trees of noble growth, in great variety (Mills 1972:66).

The loblolly pine was called the "pitch or Frankincense Pine" and was used to produce tar and turpentine; the longleaf pine was "much used in building and for all other domestic purposes;" trees such as the red bay and red cedar were often used in furniture making and cedar was a favorite for posts; and live oaks were recognized as yielding "the best of timber for ship building;" (Mills 1972:66-85). Mills also observed that:

in former years cypress was much used in building, but the difficulty of obtaining it now, compared with the pine, occasions little of it to be cut for sale, except in the shape of shingles; the cypress is a most valuable wood for durability and lightness. Besides the two names we have cedar, poplar, beech, oak, and locust, which are or may be also used in building (Mills 1972:460).

The "Oak and hickory high lands" according to Mills were, "well suited for corn and provisions, also for indigo and cotton" (Mills 1972:443). The value of these lands in the mid-1820s was from $10 to $20 per acre, less expensive than the tidal swamp or inland swamp lands (where rice and, with drainage, cotton could be grown).

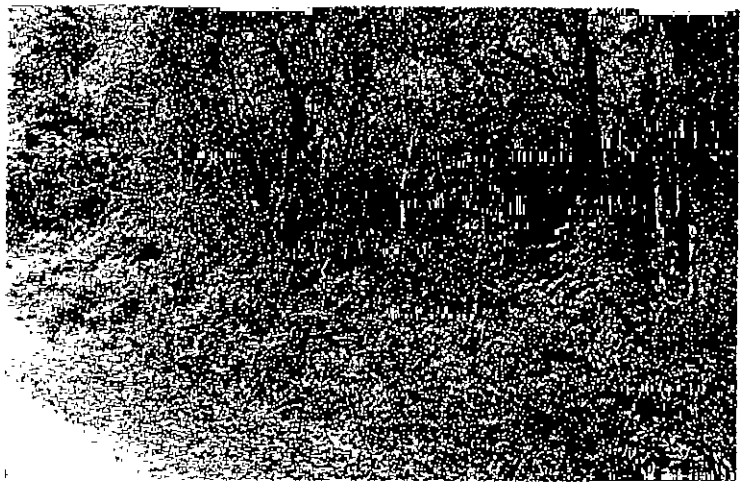


Figure 5. Dense second growth vegetation in the project area.

Today, virtually all of the project area's high ground evidences some form or another of disturbance, with much of this disturbance clearly being agricultural in nature. Large portions of the study tract are either still being cultivated or in second growth forest dominated by scrub hardwoods, representing idle fields allowed to naturally go out of cultivation. The cultivated areas are found primarily in the wester half and northeastern quarter of the study area. The southeastern quadrant of the property is a second growth forest which exhibits dense, at times almost impenetrable, vegetation. Survey in this area was facilitated by the use of a bulldozer to open transects, followed by hand clearing of survey lines using a bushaxe.

The estuarine ecosystem in the vicinity includes those areas of deep water tidal habitats and adjacent tidal wetlands, found at the northern edge of the project. Salinity in these areas may range from 0.5 parts per thousand (ppt) at the head of an estuary to 30 ppt where it comes into contact with the ocean. Estuarine systems are influenced by ocean tides, precipitation, fresh water runoff from the upland areas, evaporation, and wind. The system may be subdivided into two major components: subtidal and intertidal (Sandifer et al. 1980:158-159). These estuarine systems are extremely important to our understanding of both prehistoric and historic occupations because they naturally contain a high biomass. The estuarine area contributes vascular flora used for basket making, as well as mammals, birds, fish (over 107 species), and shellfish.

BACKGROUND RESEARCH

Previous Research

There are, of course, a number of previously published archaeological studies available for the Charleston area to provide background (see Derting et al. 1991 for references to research in the Charleston area). Trinkley (1980), for example, provides detailed analysis of excavations at the nearby Lighthouse Point Shell Ring, about 2 miles to the northeast, while Trinkley (1984) provides a brief overview of the archaeology of Sol Legare Island, about 2 miles to the southwest.

In 1990 the Fort Lamar site was recorded as archaeological site 38CH1271. The site boundaries included the primary fortifications, as well as much of the battlefield (S.C. Institute of Archaeology and Anthropology, University of South Carolina, 38CH1271 site form). Although no archaeological testing or even intensive survey was conducted, the site is recommended as eligible for inclusion on the National Register and was subsequently incorporated in the Secessionville National Register District (discussed below). This site is situated outside the current survey boundaries.

In March 1992 representatives of the South Carolina Heritage Trust conducted a brief reconnaissance of the Secessionville peninsula(Judge 1992), apparently in anticipation of the Trust purchasing a potion of the property (a transfer which did not occur). The reconnaissance identified nine different loci, based on surface evidence. Portions of three area situated within the study area. Loci 2 and 4 are described as areas of nineteenth century historic artifacts. Locus 6, only the north half of which extends into the survey area, is described as an area of a large prehistoric scatter.

Of particular relevance, however, is an archaeological survey conducted by Butler (1994) of the tract immediately to the south of the Secessionville North Tract. Called simply the Martschink Development Tract, the study of the 32.5 acre parcel south of Fort Lamar Road was conducted in September 1992. Use of 20 meter screened shovel testing revealed the presence of previously identified 38CH1271, known as Fort Lamar. In addition, a new archaeological site, designated 38CH1456, was also identified.[1]

Site 38CH1271 extended northward across Fort Lamar Road into the western edge of the property north of the road, but did not extend onto the survey property. Site 38CH1456 had its boundaries drawn paralleling Fort Lamar Road, so it did not extend into the survey tract.

In addition to the reported survey south of Fort Lamar Road, Brockington and Associates had also conducted an intensive archaeological survey of the Martschink property north of Fort Lamar Road, apparently at about the same time in late 1992 (Butler 1994:70). This survey, however, was not written up and the only data we have identified are the site forms filed at the South Carolina Institute of Archaeology and Anthropology. Four archaeological sites were identified, all of which are in the current survey boundaries.

Site 38CH1458 was identified as a diffuse scatter of prehistoric and historic materials on a

[1] This site was originally identified as a probable Mississippian palisaded village (see Butler 1992 and Anonymous 1994). Data recovery efforts at the site by Chicora Foundation in 1996 revealed the site to consist of a thoroughly plowed Thom's Creek midden with a few remnant Thom' Creek shell filled pit features. Mississippian pottery was present only as occasional items in the plowzone. Also present, but not previously reported, were the remains of the Secessionville Water Batteries which had been filled or plowed down in the early twentieth century, as well as several military features (see Trinkley 1996 for an overview).

small peninsula in the northeast quadrant of the study tract. The site was reported to measure about 390 feet north-south by 910 feet east-west. The site form reports that of the approximately 80 shovel tests in this are, only 13 were positive (representing 16.3%) and they found that "artifacts are small and recovered from plowzone only" (S.C. Institute of Archaeology and Anthropology, University of South Carolina, 38CH1458 site form). This site was recommended as not eligible, with the justification that there was "no evidence of intact cultural deposits, low artifact density and diversity" (S.C. Institute of Archaeology and Anthropology, University of South Carolina, 38CH1458 site form).

Site 38CH1459 was identified as a diffuse scatter of prehistoric and historic materials immediately east of the Fort Lamar earthworks, covering an area measuring 325 feet north-south by 878 feet east-west. The survey site form noted, however, that most of the recovered materials "appear to be late 19th/early 20th century" and that "early 20th century maps show a singe structure in this portion of the tract," which probably accounted for the recovered material (S.C. Institute of Archaeology and Anthropology, University of South Carolina, 38CH1459 site form). The site is situated in the northwestern and southwestern quadrants of the tract and of the 75 shovel tests, 24 were positive (representing 32% of the total). However, six of these positive tests were outside the current survey area, reducing the total number of tests to 58, with the total number of positive tests reduced to 18, representing 31%. This site was recommended as not eligible, with the justification of "low artifact diversity and density, no evidence of intact cultural deposits" (S.C. Institute of Archaeology and Anthropology, University of South Carolina, 38CH1459 site form).

Site 38CH1460 was found in a wooded area through the excavation of 35 shovel tests, six of which were positive (17.1%). Measuring 162 feet north-south by 585 feet east-west, the site was reported to represent a "diffuse scatter of 20th century historic debris and prehistoric ceramics in [a] densely wooded area between Fort Lamar Road and marsh/swamp off Seaside Creek" and was reported to be the "location of [a] structure on contemporary quad sheet" (S.C. Institute of Archaeology and Anthropology, University of South Carolina, 38CH1460 site form). This site was recommended as not eligible, with the justification of "low artifact diversity and density, most historic remains appear modern, no evidence of intact cultural deposits, except modern brick chimney base? and footings" (S.C. Institute of Archaeology and Anthropology, University of South Carolina, 38CH1460 site form).

The final site recorded by the Brockington and Associates survey was 38CH1461, described as a "scatter of four military artifacts recovered with metal detector in small fallow field on north side of Fort Lamar Road" which were thought to represents "artifacts lost during military occupation of Fort Lamar or its later occupation" (S.C. Institute of Archaeology and Anthropology, University of South Carolina, 38CH1461 site form). The site was estimated to measure about 98 feet north-south by 325 feet east-west. None of the 15 shovel tests excavated in the site area produced artifacts. This site, like the others identified by Brockington and Associates, was recommended as not eligible on the site form, with the justification of "low artifact density and diversity, no evidence of intact cultural deposits" (S.C. Institute of Archaeology and Anthropology, University of South Carolina, 38CH1461 site form).

Although none of these sites were recommended as eligible they are shown, along with their original positive tests, as well as previously identified 38CH1271 and the Heritage Trust loci, in Figure 6. This will help the reader to better understand the sparseness of recovered artifacts as well as the site boundaries established by these initial survey efforts. In addition, it will be useful to compare this map showing the 1992 survey with the study undertaken by Chicora Foundation.

Although we have received no response from our inquiry concerning National Register eligible properties or sites from the State Historic Preservation Office, Butler (1994:65-70) provides an excellent overview. He notes that the Secessionville Historic District, listed under Criterion A (significant events), incorporates the

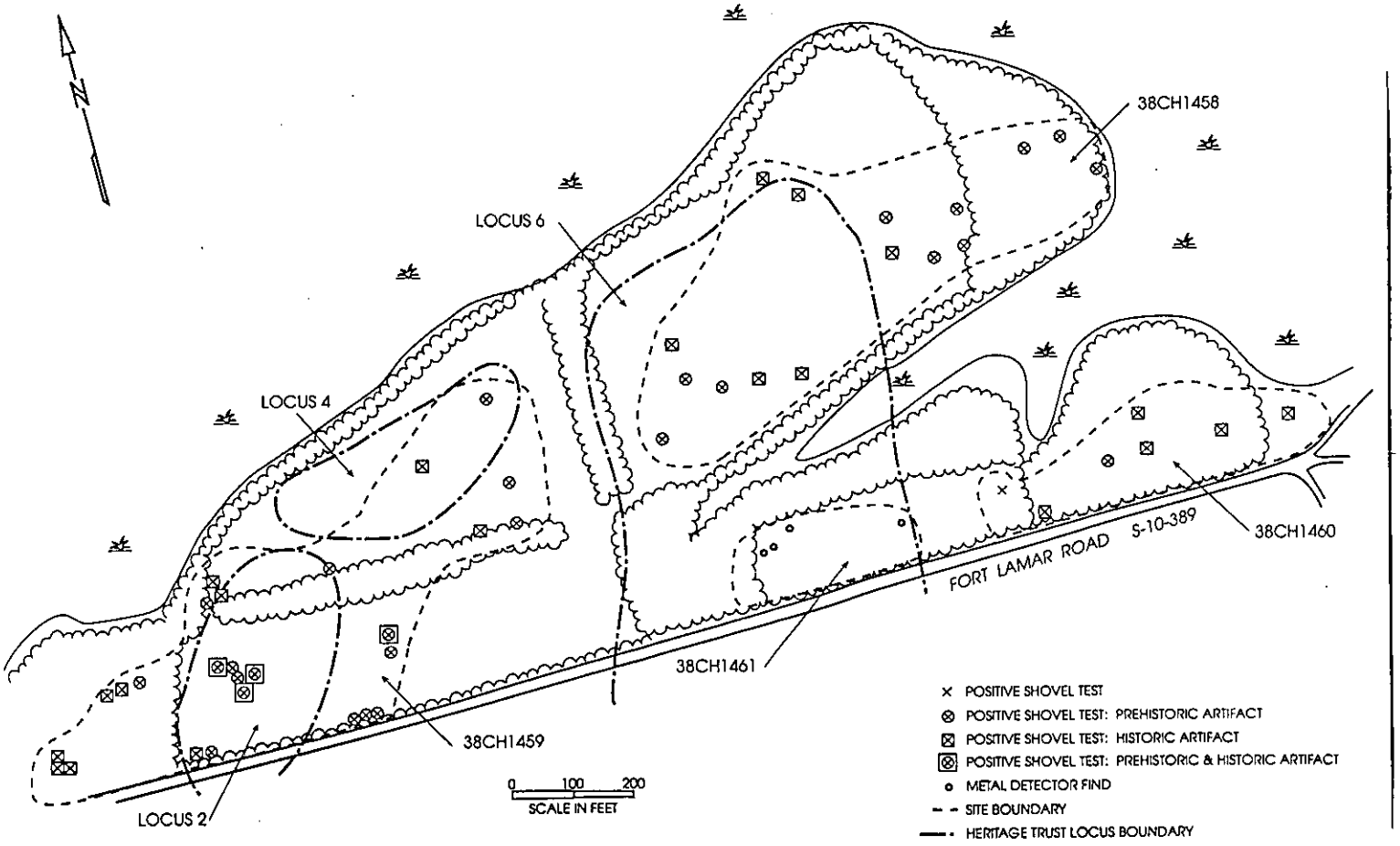


Figure 6. Previously recorded archaeological sites on the Secessionville peninsula (based on data from the S.C. Institute of Archaeology and Anthropology site files and Butler 1994).

southern half of the survey tract north of Fort Lamar Road (Figure 7). Building and sites which contribute to the character of the district include Fort Lamar, an unmarked mass grave site of Union soldiers, the Seabrook-Freer House, the William B. Seabrook House, and the Elias L. Rivers House. All of these, however, are located outside the project area and none will be impacted by the proposed development activities.

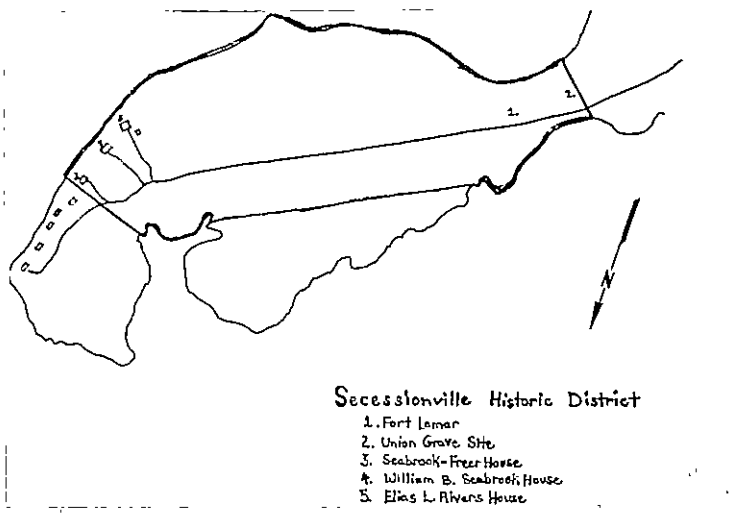


Figure 7. Secessionville Historic District Map accompanying the National Register nomination (adapted from Butler 1994:Figure 28).

Prehistoric Synopsis

Several previously published archaeological studies are available for the Charleston area that provide additional background, including Butler (1994:8-18) and Trinkley (1980). A considerable amount of archaeology has been conducted in the Charleston area and these works should be consulted for broad overviews.

The Paleoindian period, lasting from 12,000 to perhaps 8,000 B.C., is evidenced by basally thinned, side-notched projectile points; fluted, lanceolate projectile points; side scrapers; end scrapers; and drills (Coe 1964; Michie 1977; Williams 1968). The Paleoindian occupation, while widespread, does not appear to have been intensive. Artifacts are most frequently found along major river drainages, which Michie interprets to support the concept of an economy "oriented towards the exploitation of now extinct mega-fauna" (Michie 1977:124).

The Archaic period, which dates from 8000 to about 1000 B.C., does not form a sharp break with the Paleoindian period, but is a slow transition characterized by a modern climate and an increase in the diversity of material culture. The chronology established by Coe (1964) for the North Carolina Piedmont may be applied with relatively little modification to the South Carolina coast. Archaic period assemblages, characterized by corner-notched and broad stemmed projectile points, are rare in the Sea Island region, although the sea level is anticipated to have been within 13 feet of its present stand by the beginning of the succeeding Woodland period (Lepionka et al. 1983:10).

To some the Woodland period begins, by definition, with the introduction of fired clay pottery about 2000 B.C. along the South Carolina coast. To others, the period from about 2500 to 1000 B.C. falls into the Late Archaic because of a perceived continuation of the Archaic lifestyle in spite of the manufacture of pottery. Regardless of the terminology, the period from 2500 to 1000 B.C. is well documented on the South Carolina coast and is characterized by Stallings (fiber-tempered) and Thom's Creek (sand or non-tempered) series pottery (Figure 8).

The subsistence economy during this early period on the coast of South Carolina was based primarily on deer hunting, fishing, and shellfish collection, with supplemental inclusions of small mammals, birds, and reptiles. Various calculations of the probable yield of deer, fish, and other food sources identified from shell ring sites such as Stratton Place near the project study tract and Lighthouse Point, also in Charleston County on James Island, indicate that sedentary life was not only possible, but probable.

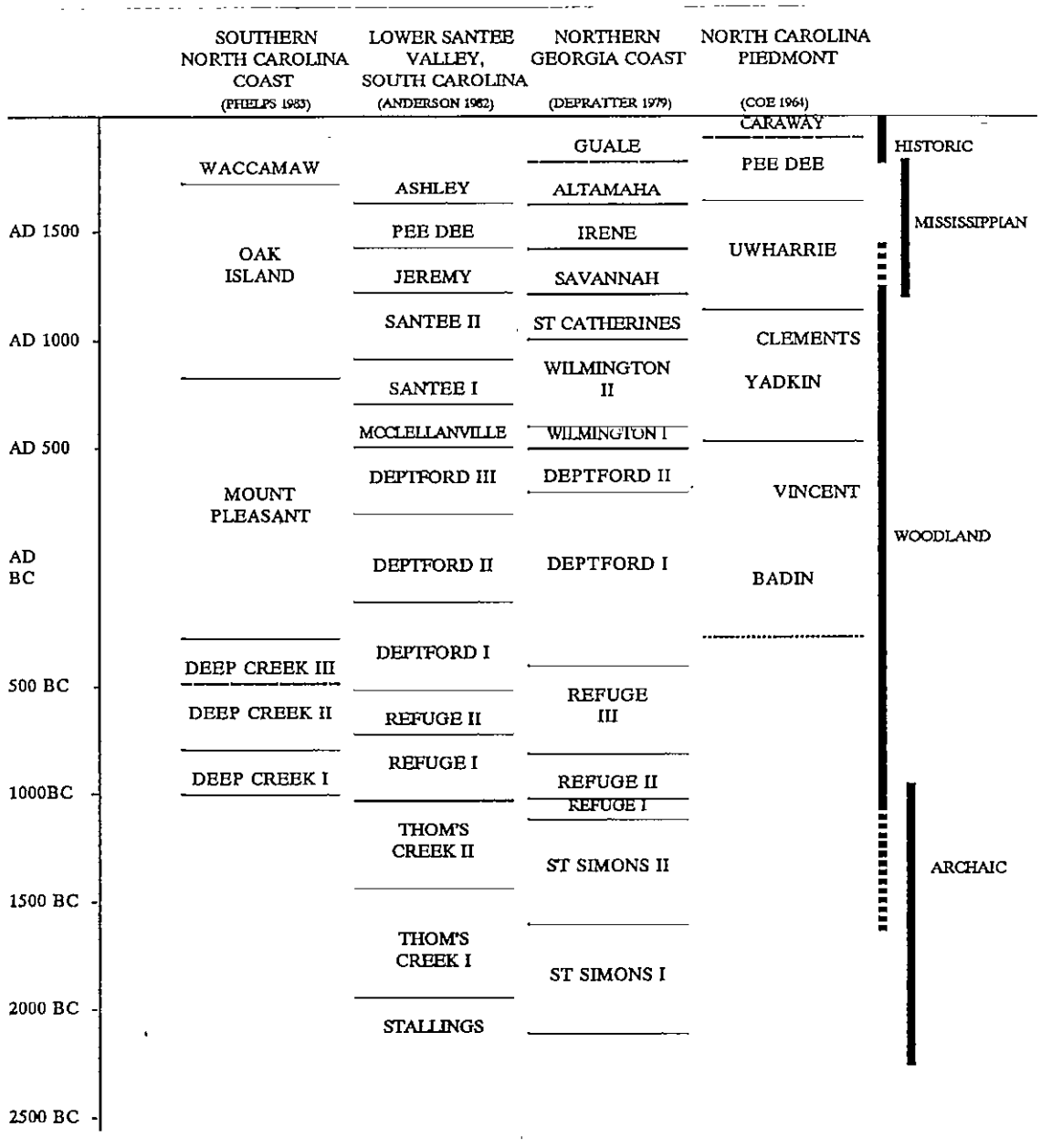


Figure 8. Woodland Period phases in the South Carolina locality.

Toward the end of the Thom's Creek phase there is evidence of sea level change, and a number of small, non-shell midden sites are found along the coast. Apparently the rising sea level inundated the tide marshes on which the Thom's Creek people relied.

The succeeding Refuge phase, which dates from about 1100 to 500 B.C., suggests fragmentation caused by the environmental changes (Lepionka et al. 1983; Williams 1968). Sites are generally small and some coastal sites evidence no shellfish collection at all (Trinkley 1982). Peterson (1971:153) characterizes Refuge as a degeneration of the preceding Thom's Creek series and a bridge to the succeeding Deptford culture.

The Deptford phase, which dates from 1100 B.C. to A.D. 600, is best characterized by fine to coarse sandy paste pottery with a check stamped surface treatment. Also present are quantities of cord marked, simple stamped, and occasional fabric impressed pottery. During this period there is a blending of the Deptford ceramic tradition of the lower Savannah with the Deep Creek tradition found further north along the South Carolina coast and extending into North Carolina (Trinkley 1983).

The Middle Woodland period (ca. 300 B.C. to A.D. 1000) is characterized by the use of sand burial mounds and ossuaries along the Georgia, South Carolina, and North Carolina coasts (Brooks et al. 1982; Thomas and Larsen 1979; Wilson 1982). Middle Woodland coastal plain sites continue the Early Woodland Deptford pattern of mobility. While sites are found all along the coast and inland to the fall line, sites are characterized by sparse shell and few artifacts. Gone are the abundant shell tools, worked bone items, and clay balls. In many respects the South Carolina Late Woodland period (ca. A.D. 1000 to 1650 in some areas of the coast) may be characterized as a continuum of the previous Middle Woodland cultural assemblage.

The Middle and Late Woodland occupations in South Carolina are characterized by a pattern of settlement mobility and short-term occupations. On the southern coast they are associated with the Wilmington and St. Catherines phases, which date from about A.D. 500 to at least A.D. 1150, although there is evidence that the St. Catherines pottery continued to be produced much later in time (Trinkley 1981). On the northern coast there are very similar ceramics called Hanover and Santee.

The South Appalachian Mississippian period (ca. A.D. 1100 to 1640) is the most elaborate level of culture attained by the native inhabitants and is followed by cultural disintegration brought about largely by European disease. The period is characterized by complicated stamped pottery, complex social organization, agriculture, and the construction of temple mounds and ceremonial centers. The earliest coastal phases are named Savannah and Irene (A.D. 1200 to 1550). Sometime after the arrival of Europeans on the Georgia coast in A.D. 1519, the Irene phase is replaced by the Altamaha phase. Altamaha pottery tends to be heavily grit tempered, the complicated stamped motifs tend to be rectilinear and poorly applied, and check stamping occurs as a minority ware. Further north, in the Charleston area, the Pee Dee or Irene ware is replaced by pottery with bolder designs, thought to be representative of the protohistoric and historic periods (South 1971).

Although there has been very little archaeological exploration of historic period Native American groups in the Charleston area, South has compiled a detailed overview of the ethnohistoric sources (South 1972).

Historic Research

Just as there are a large number of sources recounting the prehistory of the project area, the history of Charleston County has been extensively reviewed, summarized, and critiqued. There should hardly be any need to do more than point the interested reader in one or two directions for additional information and details. Simple, and readily available, summaries include *A Short History of Charleston* (Rosen 1982) and *Charleston! Charleston!* (Fraser 1989).

The history of the project area, relatively

speaking, is exceptionally well researched and well understood. Butler, for example, provides 38 pages of historic documentation, representing a full 40% of his report (Butler 1994). Côté (1995) provides an even more complete history of the project area, focused on the immediate area of "Secessionville Manor," also known as the William B. Seabrook House.

While initially we anticipated some additional historic research would be necessary, we found that the previous studies, especially Côté (1995), had exhausted the readily available primary and secondary sources. Consequently, our historical research was limited to collecting copies of various referenced plats.

Colonial and Antebellum Ownership

The earliest identified owner for the Secessionville peninsula is apparently Thomas Fawcett, who in June 1698 obtained a warrant for 100 acres on James Island (Salley and Olsberg 1973:583). The grant was dated July 14, 1698 and was recorded August 6, 1698 (S.C. Department of Archives and History, Grant Book C, pp. 197-198). Although the meets and bounds are indistinct, and although the accompanying plat can no longer be found, Côté (1995:25) notes that subsequent deeds cite this grant. He also observes that Fawcett's ownership is clouded in ambiguity — there is no will, no estate inventory, virtually no historical record at all to indicate what may have happened on the tract during this very early period.

Moreover, the eventual disposition of the tract is not clearly understood since it does not show up again until the will of George Rivers devises 79 acres (the entire peninsula) to his son, Daniel in 1749 (Charleston County WPA Wills 1747-1752, vol. 6, p. 156). Côté observes that Rivers was a moderately successful planter who seems to have focused on poultry raising. His son David had already occupied the Secessionville peninsula, since the will devices, "all that tract of land where now he liveth extending to the westward as far as where my gate posts now stands in the fence that runs from marsh to marsh across the neck" (quoted in Côté 1995:26). West of Daniel was the tract he devised to his son John (which likely includes a portion of the study tract) and even further west would have been the tract given to his son Thomas. Clearly the Rivers family was well established by 1749. Even more clearly, Daniel apparently had a settlement in the project area by this time — the first fairly conclusive evidence of a plantation settlement.

Daniel Rivers died in 1764, after acquiring a second plantation on James Island — that of Colonel Robert Rivers (formerly belonging to William Rivers). Côté (1995:27-29) suggests that he continued to live on the Secessionville peninsula, even after acquiring the other tract. There sees, however, to be little indication for this and, in fact, the wording of Daniel's will suggests more strongly that he may have taken up residence on the plantation acquired from Colonel Rivers. Regardless, in March 1765 the executors of Daniel's will sold the Secessionville tract to his son, John Rivers, for 10 shillings (Côté 1995:29). This deed traces the property back to Fawcett and also notes that the neck was known "by the Indians Washopeau" (Charleston County RMC, DB G3, p.177).

In John's 1773 will the eastern half of the plantation (accounting for about 77 acres) was devised to his son, Henry Rivers. Côté describes Henry Rivers as:

> an educated, middle-class young man who raised cattle, sheep and planted on a modest scale. His table was set with pewter plates, not silver. His few luxuries included a silver watch, a pair of silver buckles, some gold sleeve buttons, a riding chair and a small lot of books. He also owned eleven juvenile slaves (Côté 1995:30).

While Henry Rivers may have been a small planter, the watch, buckles, buttons, books, and riding chair all suggest that he was aggressively participating in growing consumer economy of Georgian society. Dying sometime between 1773 and 1776, this widow inherited his Secessionville

plantation (based on a 1796 plat which reveals the property was previously owned by the "late widow of Henry Rivers").

Figure 9. Project area in 1796, with Stent's settlement at the eastern end of the peninsula (Charleston County RMC, DB Q6, p. 110)

There is another gap in the chain of title between River's widow and the next owner, John Stint, Sr. who had acquired the property at least by 1796. A 1796 plat reveals that Stint was the owner of only 44 acres. As Côté observes:

> The lot of land now under discussion has shrunken from the original 100 acres to 79 acres (all of the land east of the neck) to just 44 acres (the eastern half of the land east of the neck) (Côté 1995:32).

The land west of Stint and east of the neck, according to the 1796 plat (Figure 9) was still part of the "Estate of John Rivers (Deceased)." This suggests that John's estate was only partially devised by this late date.

John Stint died in 1816 and apparently passed the small parcel to his son, John Stint, Jr. Côté (1995:33) suggests that this Stint was also a small planter who raised cotton on the parcel. This is at least partially confirmed by a Coastal Survey map which reveals the presence of a dwelling, two out buildings, and four slave houses on the south edge of the parcel, outside the survey area, in 1825 (Figure 10).

In 1837 Edward Freer, executor of the estate of John Stent, Jr. sold the 44 acre tip of the Secessionville peninsula to Rawlins Rivers. Côté reports that:

> at this time, Rivers already owned the land to the west [apparently acquiring the tract from the executors of John River's estate]. This

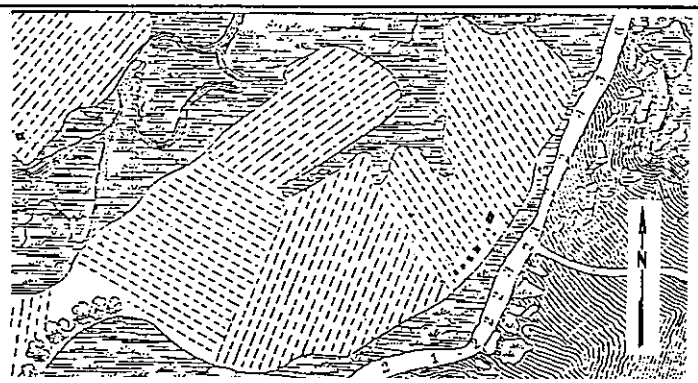


Figure 10. Secessionville peninsula in 1825 (Bache's *Charleston Harbour and the Adjacent Coast and Country*).

purchase reunited ownership of all the land on the peninsula under one owner (Côté 1995:35).

The 1850 agricultural census reveals that Rawlins Rivers was a relatively well established cotton planter — his 35 slaves produced 10 bales of cotton the previous year, as well as corn, peas, beans, potatoes, sweet potatoes, and butter (Côté 1995:35). It is also likely that he constructed what subsequently became known as the William B. Seabrook House during his ownership. By 1838, however, Rivers had sold the 44-acre tip of the Secessionville peninsula to Henry F. Bailey (Charleston County RMC, DB T10, p. 199). The land was described as:

> All that plantation or tract of land . . . known by the name of "Stint's Point," measuring and containing forty four acres of high land more or less . . . bounding to the north on Simpson's Creek, to the northeast, east and south on a creek called Savannah Creek and to the west on land belonging to me the said Rawlins Rivers . . . (quoted in Côté 1995:36).

By 1841 Bailey had acquired all of the Secessionville Peninsula, plus additional land, for a total of 410.7 acres, which were surveyed by Robert K. Payne (Figure 11). This is a particularly valuable plat, since it reveals that while the main settlement had not moved from the earlier 1796 plat, the slave settlement had been shifted further away — into the current study tract. The plat also reveals that the point was still known as Stent's Point and that there was likely a ditch (possibly a property boundary) dug across the narrow neck. Côté suggests that there was "a bridge across a marshy inlet," although the plat suggests that this is more likely another ditch or dike, perhaps impounding a portion of the marsh for rice planting.

The Secessionville tract was sold by Bailey to Joseph Washington Hills, who by 1850 had acquired a total of 250 acres (Côté 1995:40). He owned 32 slaves and produced 9 bales of cotton, as well as subsistence crops. By 1851, however, he sold the 250 acre plantation to Constant H. Rivers, reserving for himself, "one lot of land" in what had already been promoted by Rivers as a new summer village.

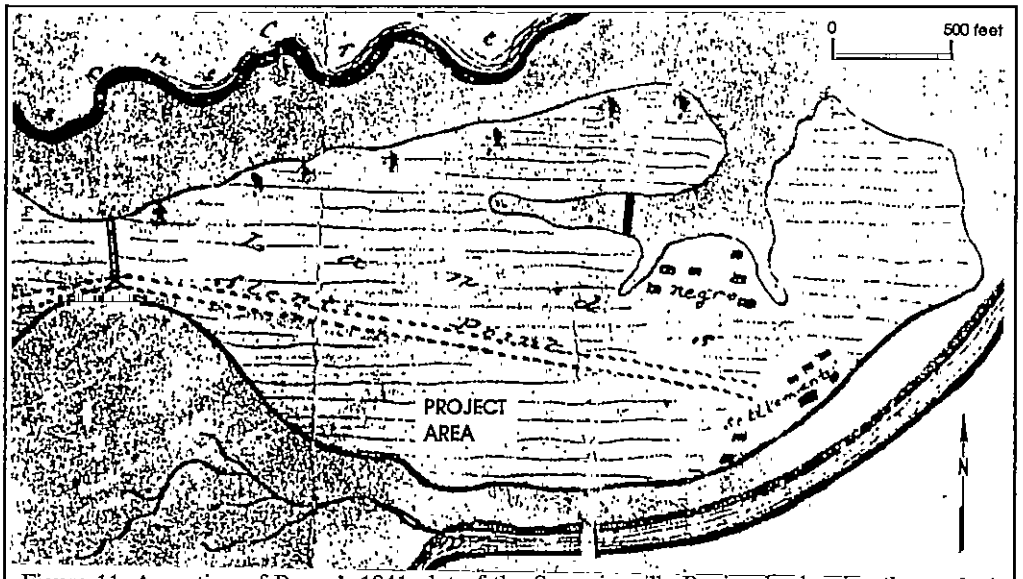


Figure 11. A portion of Payne's 1841 plat of the Secessionville Peninsula showing the project area and the "negro" settlement situated on the survey tract.

The Development of Riversville

Constant Rivers was not only a successful cotton planter on James Island, he was also the developer of what historically was known as Riversville, a summer village for the island's planters. An 1852 mortgage identified Riversville as encompassing 14 acres and being situated at the extreme southeast end of

Stent's Point. Côté observes that:

> Its seven lots fronted on Bay Street, a boardwalk promenade which ran the length of the village's settled waterfront, just above the high water mark of Savannah Creek. Behind the houses was the street known as Main or Washington, which rang parallel to Bay Street. This street still exists. It ran west from the tip of the peninsula to a point where it turned to continue on, as Savannah Road, to the neck of the peninsula and beyond. Two streets, Calhoun and McDuffie, ran between Main and Bay (Côté 1995:44).

He further notes that at least six of the seven lots had substantial houses built on them prior to the Civil War. In addition, a steamboat landing was constructed at the tip of the peninsula, probably to allow planters to transfer their belongings, and family, to the summer village.

Local legend explains that name "Secessionville" was derived from the "fact" that a group of James Island planters "seceded" from the previous summer village at Johnsonville (this view is repeated by Butler 1994:25). As Côté goes on to explain, "the tradition always goes on to state emphatically that the name is not related to South Carolina's secession from the Union on December 20, 1860" (Côté 1995:n.p.). Côté admirably debunks this myth, proving that the village's earliest name was Riversville — a name which was still in active use as late as June 1859. In contrast, there is no evidence of the name "Secessionville" prior to February 23, 1861. Further, he found an 1864 Civil War soldier's account of the name — "This place is said to be where the first secession flag was raised." There is little doubt that the name "Secessionville" is directly tied to South Carolina's dissolution of the Union.

The year before the Civil War, Riversville had eight occupants — Adella M. Hills, Constant H. Rivers, William H. Rivers, Thomas H. Grimball, James M. Lawton, William W. McLeod, William B. Seabrook, and John W. Holmes. Only two, Grimball and Seabrook, owned 1,000 or more acres, or 90 or more slaves. Most were relatively modest planters (Côté 1995:59).

The Civil War

Just as there are numerous accounts of Charleston's history, so too are there several excellent synoptic histories of Secessionville and the siege of Charleston. Not only do Butler (1994) and Côté (1995) provide overviews, but Burton (1970) and Rosen (1994) help place the local events in a much wider perspective. Finally, Gragg (1994), Jones (1911), and Power (1992) provide thorough secondary accounts of the actual Battle of Secessionville — the only action which the project area saw during the Civil War.

The election of Abraham Lincoln in 1860 precipitated the long-brewing crisis between the North and the South. Seven Southern states, lead by South Carolina, seceded before Lincoln's inauguration; four more plus the Indian Territory joined them in early 1861, with elements in Missouri, Kentucky, Maryland, and Arizona also finding representation in the resulting Confederate States of America. Irresolution marked the initial Northern response to secession, but this was quickly changed after the morning of April 12, 1861 when Confederate forces fired on Fort Sumter (see, Rosen 1994:63-68 for an overview of the events leading up to the attack on Sumter and the disagreements among historians of how these events transpired).

Federal response was galvanized by the South's first hostile action and in less than a month the Union blockade on Charleston and other Southern ports was established. By November 1861 what Burton called "the most formidable armada ever assembled under the American flag" sailed into Port Royal and began to methodically destroy the Confederate forts guarding the entrance and protecting both Hilton Head and the town of Beaufort (Burton 1970:68). The Confederate forces retreated after only a few hours, leaving the area to the Federal troops.

The fall of Port Royal sent shock waves through the Confederacy and shortly afterward the little known General Robert E. Lee arrived in Charleston to assume command of the new military department of South Carolina, Georgia, and East Florida. Lee established his command at Coosawhatchie, on the line of the Charleston and Savannah Railroad. His strategy, in the words of Rosen was:

> to concede the immediate coast (a move that did not sit well with the planters of the area) except for the forts guarding Charleston and Savannah, which he greatly improved; to obstruct all the waterways between the two cities not already occupied by the Union navy; and to protect the railroad (Rosen 1994:83).

While it is certainly clear that the ability of generals and the experience of manpower affected the course of the Civil War, geography set the context in which these variables functioned. The Appalachians divided the Confederacy into eastern and western theaters, while the Mississippi further set apart this region. The Atlantic and Gulf coasts were lesser fronts. It was the proximity of the rival capitals — Richmond and Washington — which served to protect Charleston. Although the Union forces in Port Royal were posed to launch an offensive assault on Charleston, in the hope of splitting the Confederacy in two, Lincoln was preoccupied with an attack on Richmond.

As the Union forces delayed, Charleston continued to strengthen its defenses. Lee placed General Roswell S. Ripley over the Charleston district. By March 1862 Lee was replaced by Major General John C. Pemberton, an individual almost universally disliked by Charlestonians. Rosen notes that he relieved Ripley of his command and was never able to get along with South Carolina's Governor Pickens. Soon Charleston was under martial law and the local paper cried that this was "grievous and intolerable oppression — an unreasonable and tyrannical measure" (quoted in Rosen 1994:89).

In spite of the measures taken by Lee, Ripley, and then Pemberton, the large rivers of coastal South Carolina were a serious weakness in the defense of Charleston since they allowed numerous entrances and routes of movement — most difficult to protect or defend. Coupled with this natural weakness, Pemberton decided to draw his defenses inward toward Charleston, and abandoned the fortifications at Cole's Island on the Stono Inlet. Combined, these two were seized by the Federal navy, which began a gradual movement up the Carolina coast from Port Royal, first to Cole's Island, to Edisto Island, to Seabrook Island, then to John's and Kiawah islands, then finally digging in on Folly Island. This created a staging area for the assault on Charleston.

Among the Confederates' greatest fears was that the Union army would launch an assault on James Island, since if it fell, artillery batteries on the island would almost certainly lay waste to the inner harbor defenses. As a result, extensive defensive batteries were erected on James Island. Figure 12 shows James Island in 1862, after the construction of these Confederate batteries had begun. One of these, at Secessionville, was begun in January 1862. Colonel Lewis M. Hatch and the 23rd South Carolina Infantry constructed a four-gun battery across the narrow neck of the peninsula, an observation tower immediately behind the battery, and a bridge at the northeast corner of the peninsula to connect it with the mainland and provide a rear exit. On May 29, 1862, under the increased threat of invasion by Union forces, Major John G. Pressly, commander of the Eutaw Regiment (25th S.C. Volunteer Infantry) at Secessionville and Provost Marshal for James Island, ordered that the island be evacuated. The notice in the Charleston *Mercury* instructed the planters to remove all private property, including slaves. Corn and fodder would be purchased by the Quartermaster. Concerning livestock:

> Beef Cattle will be valued and paid for by the Commissary Department. Milch Cows, if for the support of the negroes, may be sent off at once, but no Cattle can be removed for the purpose

of being sold to butchers. Cattle cannot be removed from the Island without an order from the Provost Marshal. Sheep, Hogs, &c., must be removed, or, if not, will be taken and valued by the Commissary (Charleston *Mercury*, June 2, 1862).

Côté observes that the Secessionville works, known initially only as the Tower Battery, was an impression, if not completed, defensive work in late May 1862:

> The fort at Secessionville embodied a sophisticated array of defenses. It stretched the entire width of the narrowest part of the peninsula, thereby requiring any attacker to confront it head-on — where they were in the direct line of the fort's artillery and small arms fire.

An attaching army hadvirtually no room to maneuver, for the neck of land on which the fort was built narrowed to a killing field less than two hundred yards wide directly in front of the fort. Flanking maneuvers were made impossible by the salt marsh, which protected both sides of the fort, and any frontal assault was immediately slowed down by an abattis — a barricade of felled trees with the sharpened branches facing the enemy.

Figure 12. James Island in 1862 showing the early Confederate defensive works (*E. & G.W. Blunt's Map of Charleston and Vicinity*).

After penetrating the abbatis, the attacker had to deal with a moat seven feet deep and then scale a nine-foot high, hard packed earthwork. Those who withstood their withering fire and made it to the parapet of the earthwork then faced a second line of defense, for the whole interior of the fort could be swept by fire from a series of rifle pits in the rear of the fort. Outside the fort, the woods and bushes between the fort and the village were also filled with Confederate sharpshooters (Côté 1995:68).

Secessionville's Place in the Theory of Field Fortifications

The fortifications described by Côté were traditional, and were based on the prevailing

science of military warfare. As Paddy Griffith explains, even before the Civil War America's army had shown its tendency to "dig in" (Griffith 1989:124). In fact, he comments that, "it was perhaps significant that the Republic's only official military academy had been built as a college of engineering" (Griffith 1989:124). He explains that:

> Their Professor of Engineering and the Art of War, Dennis Hart Mahan, was to all accounts a persuasive teacher — and his favourite theme was the pre-eminence of the spade in combat (Griffith 1989:124).

Griffith realizes that Mahan, and his disciples — especially General Wager Halleck (who immortalized himself for his curious habit of digging in every few miles as he pursued a defeated enemy; he had earlier in 1856 written the text, *Elements of Military Art and Science*) and General P.G.T. Beauregard — based their faith not so much on a careful study of Napoleon's tactics or even American history, but rather on their complete lack of faith in militia armies to hold their own in battle. Any significant war would require the use of militias "and that meant it would have to be fought by primitive tactics which sacrificed mobility and flexibility in order to give a minimum standard of confidence and security to the troops (Griffith 1989:125). It was only behind earthworks that Mahan felt America's militia would be capable of fighting successfully. The most powerful of all Mahan's writings, *A Treatise on Field Fortifications*, was so significant that it was published during the Civil War by Confederate printers and was the standard work. When the Secessionville works are examined, it is clear that they were designed, laid out, and constructed in careful, almost rigid, adherence to Mahan's principles (Mahan 1864).

Griffith deals at length with the psychological power of fortifications — noting that throughout the war both sides dug in and both sides were loath to attack fortified entrenchments. The conventional wisdom was that fortifications could multiple the soldier's combat value by no less than six times — allowing, for example, 10,000 men to beat off 60,000 (Griffith 1989:130). In spite of the almost mythical attributes of earthworks, all that most fortifications could provide, according to Griffith, was to provide the defender with extra time to pour fire from relative security with the hope that this directed fire would demoralize the attacker before he reached his objective. He goes on to point out that:

> Actually the main physical strength of a trench position was usually to be found neither in the extra protection it offered the defender nor in the obstacles it put in the way of an attacker. Paradoxically, it was the cleared field of fire in front of the trench that made it most dangerous. . . . It gave them [the defenders] a killing ground in which an attacker could be brought face to face with the full dangers of his enterprise (Griffith 1989:129).

Griffith notes that regardless, the vast majority of earthworks actually taken fell to flanking action (perfected by General Sherman) not to frontal assaults. He notes that:

> the longer the war went on, the more soldiers could be found who had experienced a "slaughter pen" at first hand. Such men had searing visions of the human cost of such enterprises, and quite naturally found it difficult to balance this against the highly abstract benefits to be gained by even a successful assault (Griffith 1989:131).

By late in the war this resulted in numerous cases of combat refusal. Even when mutiny was avoided, there were increasing numbers of abortive charges which, in Griffith's words, "went to ground" almost before they began (Griffith 1989:131). Drury and Embleton also note that more and more ditches were dug as the war continued (Drury and Embleton 1993:21).

In spite of this, Griffith warns that the ditches of the Civil War soldier were no more necessary in the mid-nineteenth century than they had been a hundred or more years earlier.[2] He suggests the dependence on earthworks such as those at Secessionville grew out the combatants themselves:

> A more educated American population was less ready to risk death without at least a semblance of personal protection, and a high command imbued with the flannelling of the Vauban and Mahan schools was blinded to the inner character of mobile warfare. Once this curious brew had been mixed together and shaken up thoroughly in a few pitched battles, it settled out as the 1864 elixir. Lots of digging, lots of skirmishing, noise and smoke, lots of respect for the enemy's line and an acute awareness of the claims he had staked. But not often very much real fighting. It was a far cry indeed from the methods of Napoleon! (Griffith 1989:135).

The Battle of Secessionville

Considering this context, it is easier to understand the relentless effort placed into the Charleston defenses, including those at Secessionville. The fortifications consisted of a barbette battery with two bastioned salients and on re-entrant angle. The gorge was open, although by June of 1862 two magazines had been built, the newer one including a bombproof (Figure 13).

The Confederate army defending Charleston dug itself in, staked its territory, and established a clear boundary. Major General David Hunter saw an opportunity to attack James Island and perhaps even push on to Charleston. In early May 1862 he assigned Brigadier General Henry W. Benham the task of developing plans to assault the city by way of James Island (Power 1992:157-158). His initial plan was to mount a land assault by way of Edisto Island with half of the available troops, while depositing the remaining half quickly on James Island. This plan, however, ran into the bureaucratic obstacle of acquiring sufficient troop transports and, when the expedition was

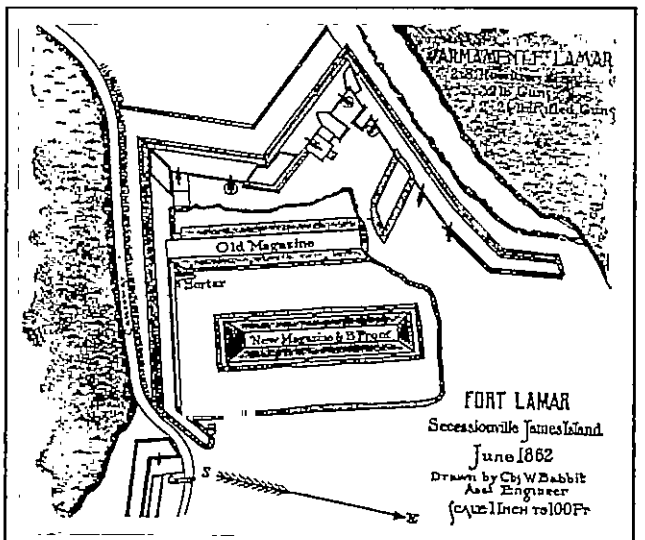


Figure 13. Fort Lamar (adapted from Johnson 1890:27).

postponed, Benham observed:

> this movement, which was to have been a surprise, is undoubtedly now known to the enemy and may be defeated, or can be accomplished only at the probable cost of a large sacrifice of life, or it must be abandoned and Charleston still held by the rebels (quoted in Power 1992:158).

In spite of the problems, on June 2, 1862 Benham landed about 11,500 troops in the vicinity

[2]Griffith disputes those, such as Drury and Embleton (1993:21), who still suggest that entrenchments were the result of improved weapons. He observes that the threats from snipers and rifled artillery, while perhaps psychologically terrifying, were tactically marginal. Further, the new weapons, in his words, "were less different from their predecessors than had been claimed" (Griffith 1989:134).

of Grimball's plantation on the southwestern tip of James Island. Although the Confederate forces were aware of this landing and sent out scouting parties, they did little else. Burton (1970:103-104) attributes this primarily to the covering fire provided by the Union gunboats in the Stono River. One major effort by the Confederates to push the Union forces back into the Stono failed miserably, with the loss of about 60 or 70 Confederates and only 20 Union troops (see Power 1992:161-162 and Burton 1970:103-104).

At this juncture, General Hunter left James Island to seek additional reinforcements, effectively postponing the efforts to take Charleston. What happened next is relatively well known, and well recounted by Power:

> Hunter left Benham in command on James Island, issuing vague orders which seemed to simultaneously prohibit and require offensive actions. "You will make no attempt to advance on Charleston or to attack Fort Johnson until largely re-enforced or until you receive specific instructions from these headquarters to that effect," the orders read. "You will however provide for a secure entranced encampment, where your front can be covered by the fire of our gunboats from the Stono on the left and creek from Folly River on our right." These instructions would be the focal point of a wide-ranging controversy in a few days (Power 1992:161).

Accounts of the battle of Secessionville are provided by Gragg (1994), Jones (1911), and Power (1992). In addition, Butler (1994) provides another summary of the action. In the simplest of terms, by June 15 Benham decided that the Secessionville earthworks threatened both his position and the continued presence of the Union gunboats in the Stono. He embarked on what he called a "reconnaissance in force" to overwhelm Secessionville, eliminating this threat (and fortuitously, placing his forces in proximity to Charleston). Power notes that Benham's junior officers were not nearly as excited about the idea, although it seems unclear whether their concerns were clearly conveyed. Regardless, the loosely devised plans called for Brigadier General Isaac I. Stevens' Second Division to lead an advance the next morning, June 16th, at four o'clock, with Brigadier Gen. Horatio G. Wright's First Division in close support. The Union gunboats were to provide artillery support.

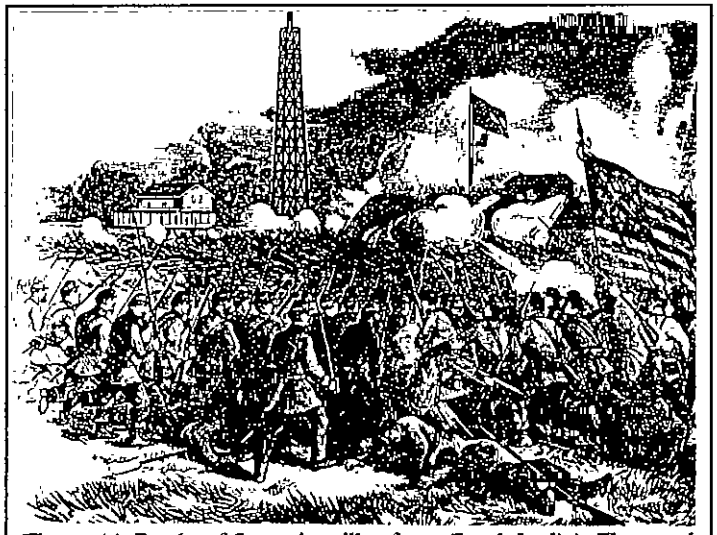


Figure 14. Battle of Secessionville (from *Frank Leslie's Illustrated Newspaper*, July 12, 1862, courtesy of the S.C. Historical Society).

Meanwhile, the Confederate forces, under the commander of the "Tower Battery" as it was still known, Colonel Thomas G. Lamar, had been busy having his 1st South Carolina Artillery finish the major defenses at the earthworks. The night of June 15th was the first time in weeks that they had been allowed to sleep without their small arms at ready.

The Union attack began on-time, but capturing the Confederate pickets about ¾-mile away from the earthworks raised the alarm in at Secessionville and Lamar rushed his troops to the gun emplacements, while requesting nearby infantry support, with the Union troops only a few hundred yards from the earthworks. The battery's first shot punched a gaping hole in the Union line, causing them to falter while re-organizing. Meanwhile Confederate infantry began arriving, taking positions on the fortifications and commencing with musket fire (Figure 14). By this time it is likely that the Union troops were within what might be called the "decisive" range of rifle fire — under a hundred yards (see, for example, Griffith 1989:146).

Adding the problem faced by the Union forces was the topography — a narrow peninsula which forced the troops to bunch together. The result was disastrous — just as it had been for Napoleon's "monstrous column" 50 years earlier. This made the troops both exceptionally vulnerable and unwieldy as they got closer to the enemy. As Griffith notes:

> This was no new perception born of improvements in small arms; it had been the most fundamental teaching of the European theorists since 1815. The American generals who saw fit to ignore it could doubtless be accused of following outdated foreign practice, but it was abusive practice which had long been superseded in the more advanced schools (Griffith 1989:152-153).

Of course, at Secessionville, there was little choice but to bunch together, go through the narrow neck and hope that regiments could reform for the final assault. While the Union ranks broke into confusion, at least some troops did reach the parapet of the work, where they engaged in hand-to-hand combat with the Confederate defenders. Perhaps surprisingly, they were driven off the works and fell back to reform. In addition, about this time Stevens' brigade came up to offer support.

Griffith notes the problem of accelerating the attack was common to all such engagements, observing:

> Loss of impetus and failure to achieve shock were the main enemies of the Civil War tactician who wanted to cross the vital last 33 yards to come to grips with his foe. . . . The use of massed formations turned out to be even less successful (Griffith 1989:158-159).

He notes that many carefully developed attacks degenerated into rather formless mob tactics of a skirmish attack — essentially a swarm of individuals. At Secessionville this "swarm" was never strong enough to sweep over the Confederate positions in a unified movement — with a predictable outcome.

The Union field artillery, combined with the gunboats, were also ineffective. Rather than maneuver their pieces close to the enemy line in order to blow a hole in it, they were placed safely out of musket range, resulting in largely ineffective long-range fire. Power observes that even the gunboats' long-range shots did as much damage to Union troops as they did to the Confederate defenders (Power 1992:166).

While the Union forces attempted a flanking maneuver, the topography and vegetation prevented any effective attack. By about 7:30 in the morning, 3½ hours after the battle began, the Union troops began their withdrawal. Like most of the battles to follow in the Civil War, the Confederate troops did not capitalize on their victory by following the Federal forces. One explanation may be that, proportionally, the Confederate losses were nearly as great. Total Union casualties numbered 683 (107 killed, 487 wounded, and 89 captured or missing), representing nearly 20% of the 3,500 troops committed to the battle. Confederate casualties

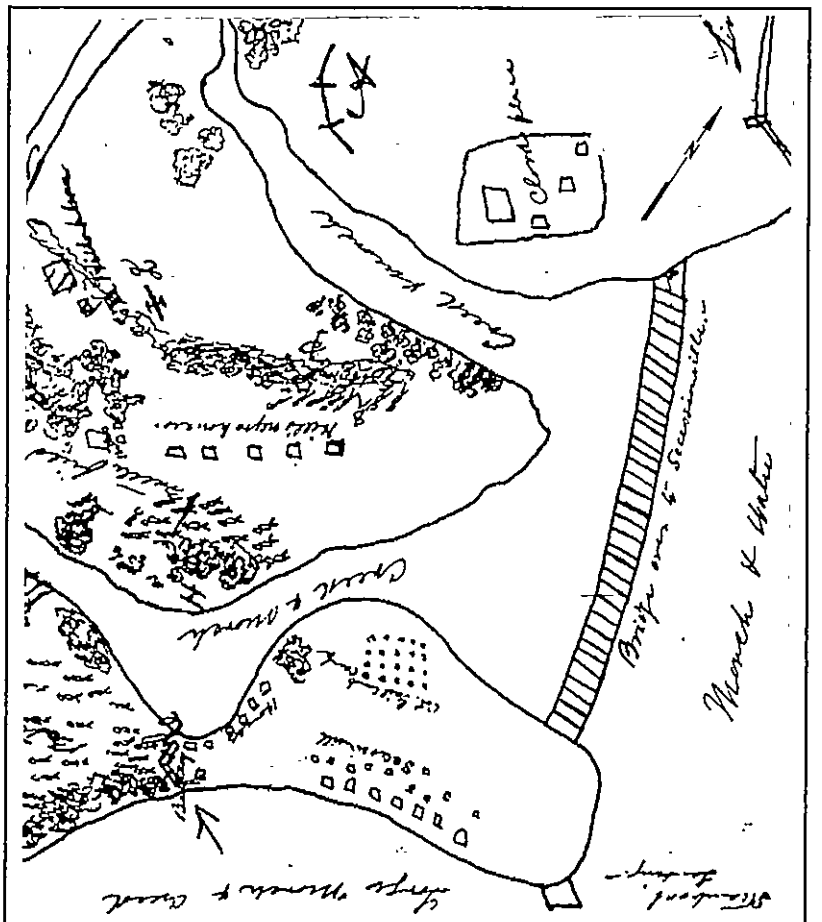


Figure 15. Capers' map of Secessionville (adapted from Butler 1992:48).

included 52 killed, 144 wounded, and 8 captured or missing out of a total of 1,250 troops, or about 16% (Power 1992:168).

A report in the Charleston *Mercury* of June 17, 1862 reported that the Union dead left on the field were buried in a mass grave in front of the Tower Battery, perhaps in the graveyard shown on a later twentieth century plat of the property (discussed below). In addition, additional Union dead were apparently buried at or near Grimball's plantation (Côté 1995:86). The Confederate dead were apparently transported to Charleston.

There are several maps of the battlefield. One of the more interesting, which provides considerable detail concerning the general area is reported by Côté (1995:79) to have been produced by Lt. Col. Ellison Capers, an artillery officer. This same map is attributed to a Major Manigault and given an 1864 date by Butler (1994:Figure 23). Based on the detail shown, it seems more likely that the earlier date suggested by Côté is correct. In particular, the sketch (Figure 15) shows the encampment of Lt. Col. Peter Gaillard (who assumed command during the Battle of Secessionville after Lamar was wounded). Figure 16 is a somewhat more finished version of a similar map, prepared by Stevens, while Figure 17 shows the battlefield from the perspective of the 79th New York Highlanders.

Hunter, Power reports, was furious at Benham, describing the battle as "a disastrous repulse, only redeemed by the brilliant conduct of the troops while engaged in the assault and their steadiness and patient courage when compelled to retire." He also called Benham's characterization of the battle as a "reconnaissance in force," "too puerile to deserve consideration" (Power 1992:169). Benham was sent to Washington in disgrace for courts martial. Burton recounts how a variety of political forces intervened. While Benham's rank was reduced, and later restored, he was never charged and retired from the military in 1882. He did not, however, ever again command combat troops (Burton 1970:113; Power 1992:170). James Island was evacuated by Union forces a few days later, ending their efforts to take Charleston by land.

For their part, the Confederate defenders realized the extraordinary importance of James Island to the defense of Charleston and spent much of the rest of the Civil War improving these defensive lines. Confederate Brigadier General Johnson Hagood, who served as Colonel of the 1st South Carolina Infantry, at Secessionville during its attack, later extensively quoted from General

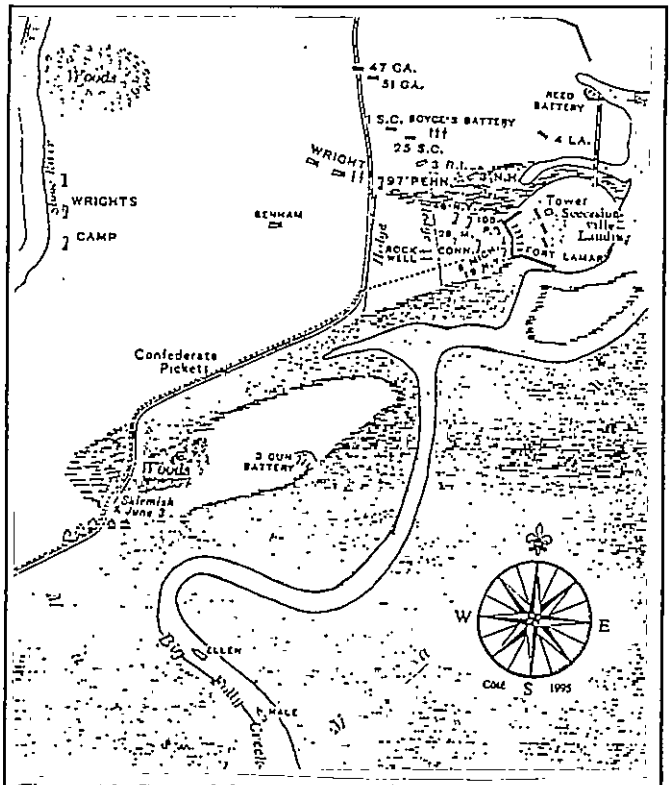


Figure 16. General Stevens' map of the Secessionville area (adapted from Côté 1995:80).

Ripley's report of the defenses:

> General Beauregard's efforts were confined principally to completing the defenses of Charleston. On James Island, with which this writer is most familiar, these became very complete. Pemberton's and Ripley's lines from Secessionville, by way of Royall's house to Fort Pemberton, were abandoned. Starting at Secessionville a line much shorter was carried to Dill's, just above Grimball's on the Stono. This was a cremaillere [crenelated] infantry breastwork of strong profile, with heavy enclosed redoubts at distances of 700 to 800 yards, having defensive relations to each other. On the Stono were one or two heavy redoubts securing that flank. Fort Pemberton was nearly, if not quite, dismantled. From Secessionville to Fort Johnson, along the eastern shore of the island looking towards Folley and Morris Islands, heavy batteries, opened to the rear with trenches or breastworks for infantry supports, were erected, and from Johnson to opposite the city heavy batteries for the defense of the inner harbor. Bombproofs, covered ways, rifle pits and all appliances of the engineer's art were exhausted in strengthening this system of works (Hagood 1910:169).

During late 1862 and early 1863 the Secessionville works were increased from a four-

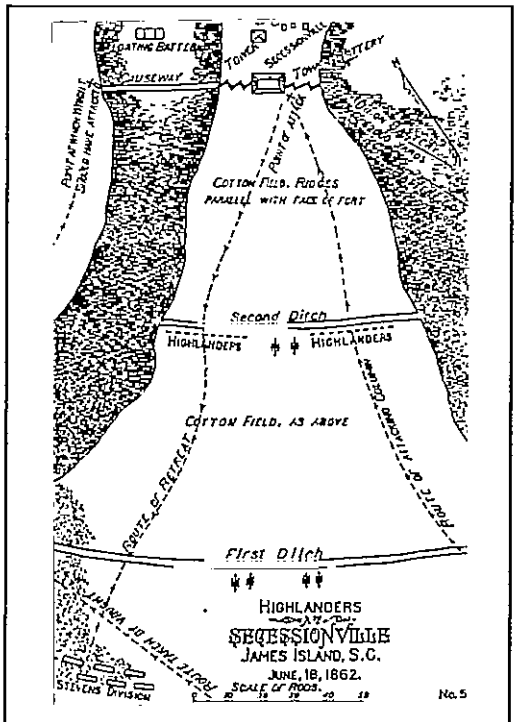


Figure 17. Map of the Secessionville battlefield (adapted from Côté 1995:82).

gun battery to a nine-gun fort with two power magazines and bombproofs (Butler 1994:39). By late 1863 Major John G. Pressley, of the 1st South Carolina, wrote:

> Regiment moved to Secessionville, and encamped between the line of houses and marsh towards the north. The field and staff officers occupied houses. Headquarters were in the red-top house owned by Mr. Lawton. The post was under my command. . . . This place had been greatly strengthened since we occupied it last July. Strong breastworks and formidable batteries had been built along the creek south of the peninsula, and just in front of the line of houses. A large bomb-proof had been constructed about one hundred and fifty yards northwesterly from Lawton's House [known as the Seabrook-Freer House today; see Figure 7]. Battery Lamar, across the neck of the peninsula, had been put in first-rate condition; in fact, the post was in a thoroughly defensive state (quoted in Butler 1994:43).

While Secessionville was never again attacked, the Union occupation of Morris Island, as well as the Union presence on the rivers, kept Secessionville under constant pressure. On June 20, 1863, a Confederate soldier stationed at Secessionville wrote:

> Since I wrote to you last the Yankees have shelled our camp last Wednesday they threw a few shells at our camp one only fell in camp that one fell in a few feet of several more knocked the top off a shanty with one man in it and busted in rear of the shanty (quoted in Côté 1995:89).

This same letter also recounted the complaint of Confederate troops throughout the war: "Our rations are so small that I am obliged to buy sometimes or suffer" (quoted in Côté 1995:89). In contrast, Hagood comments:

> The troops on James Island were generally hutted, and, from the facility of getting private supplies from home (they were chiefly Georgians and South Carolinians), lived tolerably well (Hagood 1910:172).

A description by Sergeant W.H. Andrews, of the First Georgia Regulars during his tour of duty in 1864 not only explains the origin of the name "Secessionville" (see Côté 1995:61-64), but also describes the site:

> This place is said to be where the first secession flag was raised, so we will take a view at our surroundings. In the first place, there is five or six houses all in a row along the edge of the marsh running north and south. In the rear of the houses there is a tower or lookout to watch the surrounding country in the day time. South of the houses we find Fort Lamar mounting several heavy guns. North of the houses is another battery of several guns. In the rear is a long bridge spanning a stream you can step over when the tide is in [sic], but when the tide is out [sic] makes for a broad expanse of water. About halfway [between] the houses and not far from them is a mound of earth known as bomb proof which is made, say four feet deep by six [feet] in width. Timbers or posts are arranged on the sides with cross timbers on top. It is them covered over in the shape of a mound some 10 to 12 feet deep in dirt and you have a place of refuge out of range of the shells (quoted in Butler

1994:43).

Talking about the Union shelling the Secessionville works, Andrews commented that one shell:

> entered the works a little farther on and the third one passed under one of the houses. His fifth one went through the roof, knocking a lot of shingles off. Several of the boys were in the house cooking at the time and by the time the shingles had reached the ground, the boys were out after them to put them around the pots, as the wood we received on the island was green pine and almost impossible to burn it (quoted in Côté 1995:97).

One of the more interesting views of Secessionville is an 1863 watercolor entitled, "Secessionville, S.C., from Black Island, Septr. 4th, 1863" which is at the Morris Museum of Art in Augusta, Georgia. Côté suggests that it was drawn by either a Union soldier or perhaps a correspondent for a newspaper, possibly Theodore R. Davis of *Harper's Weekly* fame (Côté 1995:93). Almost certainly the view was acquired from one of the "crow's nests" that were used as observation posts by the Union forces. Although the painting is dismissed by Butler (1994:44) as "stylized," Côté places greater confidence in it, noting the painter:

> pictured six substantial houses and an artillery battery fronting on the Great Sound, and eleven other structures behind them. The spacing of the houses corresponds closely with the lot descriptions in deeds from the 1850s. His depiction of fifteen civilian and two military structures agrees closely with the seventeen village structures shown on a map of the engagement drawn by Lt. Col. Ellison Capers. There were seven houses in the village; one was dismantled when the water battery was constructed at the tip of the peninsula. The single error in this painting was the artist's confusion over the tall, wooden Confederate observation tower, which loomed behind the village. He mistook it for the spire of a church (of which Secessionville village had none), and rendered the tower as a church steeple with a cross atop it. . . . (Côté 1995:91).

Summarizing, Côté notes that the painting reveals that structures were more numerous than previously thought, that the painter carefully reproduced the village's actual architecture, that the village had a boardwalk along its south edge, that there was more than one street, that the large scale removal of trees for the abattis did not seriously affect the village, that many of the earthworks were not yet built by 1863, and that the water battery (built to protect the steamboat landing) may have been added later.

The Secessionville houses apparently did not begin to disappear until early 1865 — shortly before the area was evacuated by the Confederate troops. On January 13, 1865, Brigadier General Alexander Schimmelfennig, commander of the U.S. Army, Northern District of the Department of the South, commented:

> On James Island, from Fort Johnson to Pringle, they have been busy repairing and clearing the ground to the front and rear. The buildings at Secessionville are disappearing. More than anywhere else, however, has the enemy displayed activity on the forts and batteries on John's Island; there also buildings have disappeared and batteries been unmasked. This would seemingly tend to show that the enemy is preparing for a vigorous defense; intercepted dispatches, however, rather point in the direction of evacuation (*Official Records*, Series I, vol. 47, part 1, p. 1009).

While a defense may have been contemplated, on February 17, 1865 Confederate forces in and around Charleston withdrew, joining the remnants of the Army of Tennessee in North Carolina. On February 19, Lt. General W.J. Hardee reported to Jefferson Davis, "Charleston was successfully evacuated Friday night and Saturday morning" (*Official Records*, Series I, vol. 47, part 1, p. 1071). On February 18, while the Confederate forces were quietly leaving Charleston, Company A of the 21st U.S. Colored Troops entered the abandoned fortifications at Secessionville.

The U.S. Army occupied a number of the James Island works and during this period a number of engineers were busily mapping the fortifications and inventorying the armament abandoned by the Confederates. General Q.A. Gillmore, commander of the Union forces in the Charleston area was responsible for much of this work (Gillmore 1865, 1868). In particular, he itemized the defenses of Charleston, noting that "interior defensive line" consisted on Battery Ryan, Battery Tatam, Battery Haskell, Battery Cheves, while the "exterior or siege line" consisted of Battery Tynes, Battery Pringle, Fort Trenholm, Battery Leroy, Battery No. 1, Battery No. 2, Battery No. 3, Battery No. 4, Battery No. 5, and the Secessionville Works.

Gillmore observed that the exterior or siege line:

> was constructed at a later period than the Interior Line, was much more advantageously located, and was, therefore, the chief reliance for defense. Its right, at Battery Tyrnes, rests on the Stono about two miles and a half of Fort Pemberton, while its left envelopes the village of Secessionville — the scene of Brigadier-General Benham's attack in 1862 — almost surrounded by swamps, and located directly upon the deep creeks and bayoux emptying into Folly River and Light House Inlet (Gillmore 1868:20).

Concerning the strength of the Secessionville works:

> Secessionville Works
>
> These form a large entrenched camp, the only approach to while, from the front, is by a narrow neck held by:
>
> Battery Lamar
>
> *Armament*
>
> One 42 pdr., rifled and banded.
> Three 8 in. siege howitzers.
> One 24 pdr. smooth-bore siege gun.
>
> This work is provided with a magazine and a large bomb proof.
>
> Secessionville Water Batteries
>
> *Armament*
>
> Three 32 pdr. guns, rifled and banded.
> One 24 pdr. guns, rifled and banded.
> One 24 pdr. rifle.
> Two 32 pdr. Navy smooth bores.
> One 24 pdr. iron howitzer.
> Two 6 pdr. iron field guns, smooth bore.
>
> These works extend from the left of Battery Lamar, along the edge of the marsh, to the bridge leading to Clark's Point. The line is indented, and has one bomb-proof shelter and two magazines. The guns bear on Black and Long Islands and the creeks adjacent thereto. A line of rifle-pits runs across the marsh and water to Clark's Point, to prevent boat

> parties from landing in rear of the siege line (Gillmore 1868).

Accompanying this report were Gillmore's map and plans, entitled "Plans and Sections of Rebel Works on James Island" which reveals the layout of the fortifications, including the location of the two remaining Secessionville houses, the abandoned guns, and the various earthworks (Figures 18 and 19).

About the same time, in the Spring of 1865, S.R. Seibert took the only known photograph of Secessionville. Reproduced by Côté (1995:105) from the National Archives RG 165-C, Photograph C-775, it shows the two surviving waterfront houses, the edge of an unfinished bombproof, and a number of frame structures. Côté describes these as "huts built as troop quarters and later occupied by the Freedmen." This seems reasonable, but he goes on to note that the waterfront residences were "torn down to furnish the lumber for these," which seems unlikely if General Schimmelfennig was correct and the Riversville houses weren't being demolished until just before the encampment was abandoned. It may be unreasonable to expect that we can identify a one-to-one correlation of demolition and building, especially if the demolition was conducted in anticipation of a spirited defense, as implied by General Beauregard's complaints that General Hardee was still hesitating his abandonment of Charleston as late as February 16 (*Official Records*, Series I, vol. 47, part 1, p. 1048).

Figure 18. Gillmore's map of James Island showing Confederate defenses after the Civil War (Gillmore 1868: Plate 2).

Secessionville in the Postbellum

One of the earliest accounts of Secessionville after the war is that of Esther Hill Hawks, who visited the village on May 13, 1865:

> A ride of six miles [from Fort Johnson], with an occasional deviation to visit the "works" of a few families, brought us to the rebel stronghold, Secessionville. There are but two small framed houses, these were used as Hd. Qrs. and the huts for the soldiers are scattered several acres irregularly. They are built of rough logs and mud, with thatched roofs, a chimney on the side opposite the door, and rough brick floors. . . . There are over 300 people now at this place, and it would take a stout heart to ride unmoved, among them — dirty ragged, *starving* expresses their condition. . . . We rode around the fortifications, which are of great strength and finely made dismounted and went into the house, formerly head qrs. of the rebs. Our shot and shell have shattered it considerably but it is still in *usable* condition and the people told me they were keeping it for *school* (Schwartz 1984:141-142).

By November 1866, when she re-visited Secessionville, the house was being lived in by a black family (Schwartz 1984:161).

Côté (1995:109) reports that the Seabrook and Freer families returned to Riversville, now renamed Secessionville, in the late 1860s,

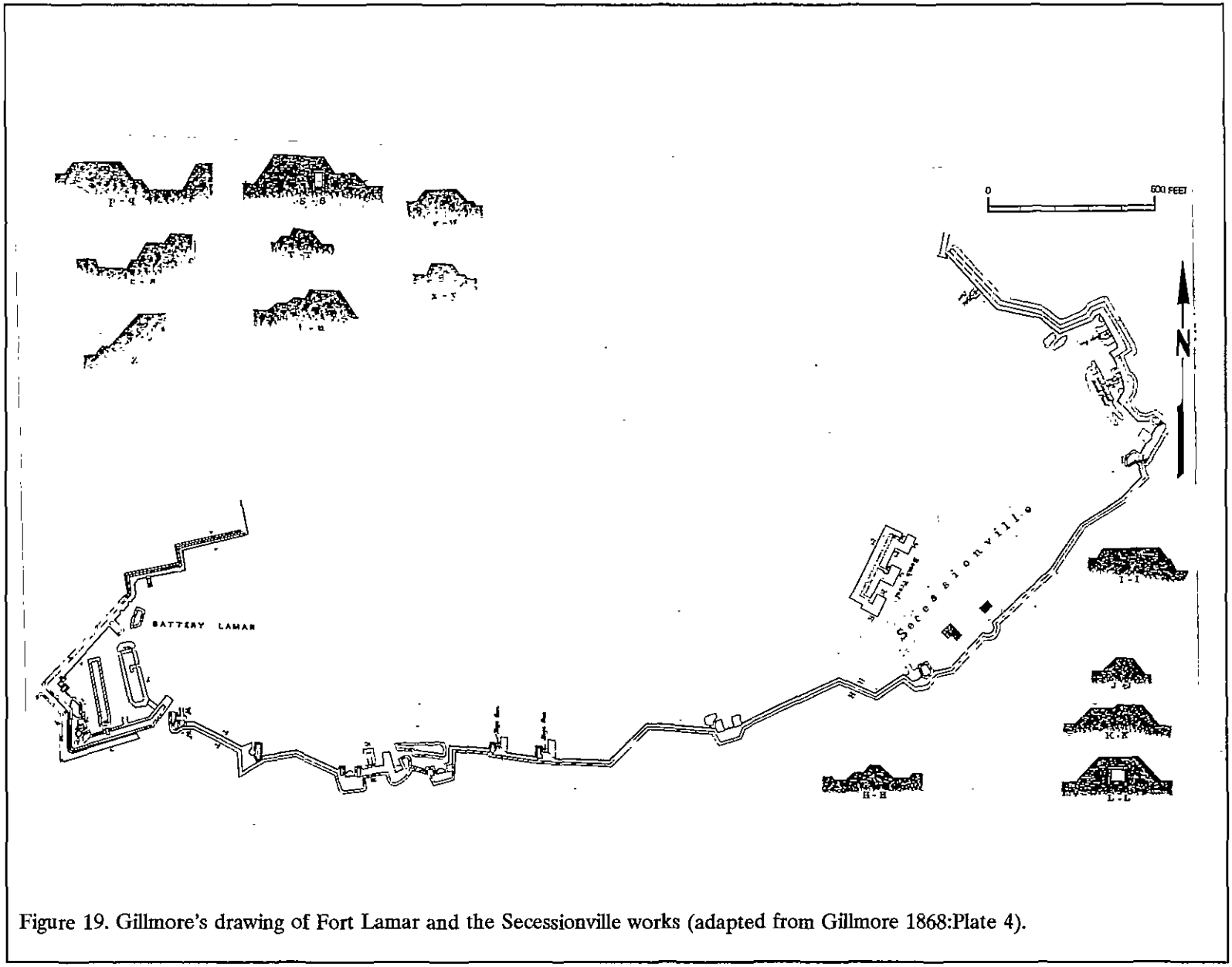


Figure 19. Gillmore's drawing of Fort Lamar and the Secessionville works (adapted from Gillmore 1868:Plate 4).

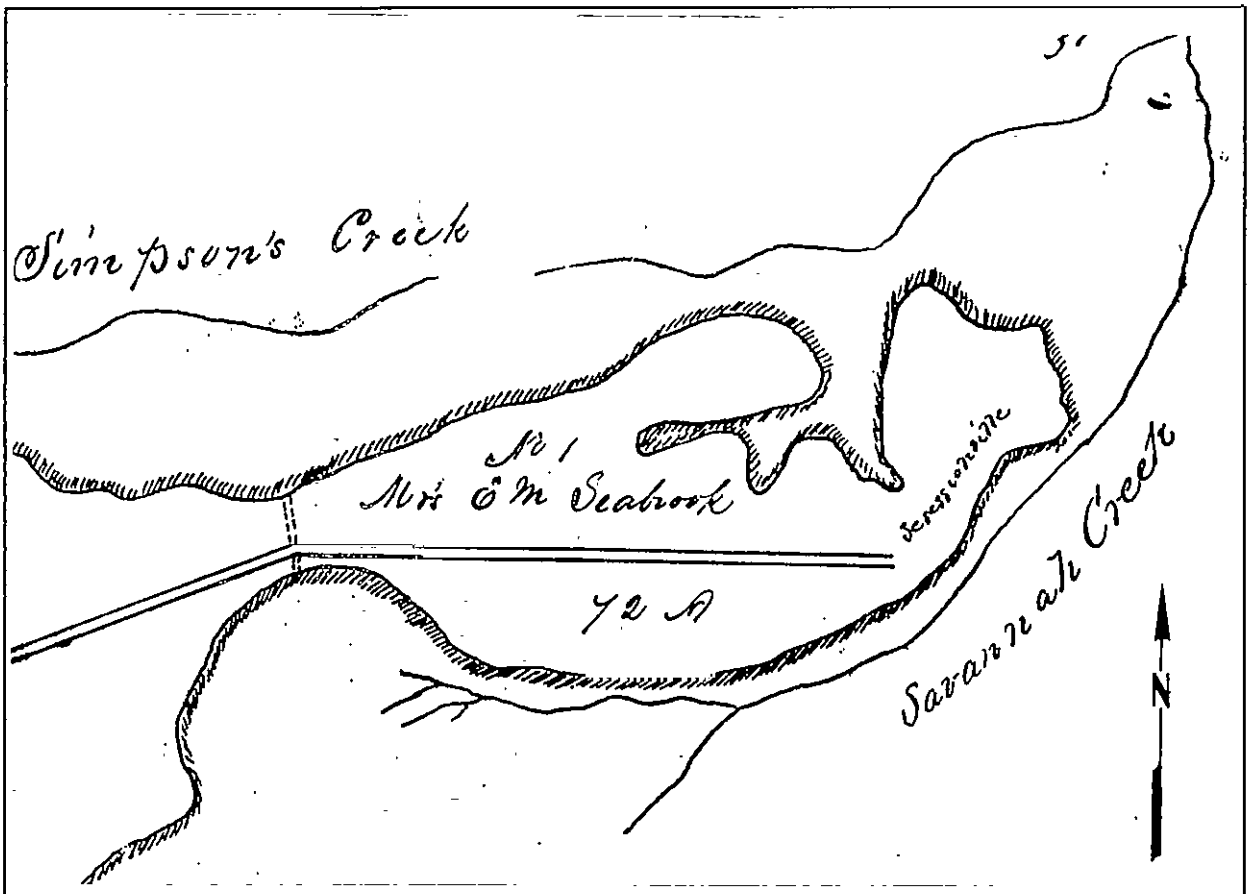


Figure 20. Plat showing the Secessionville peninsula in 1872 (Charleston County RMC, PB B, p. 37).

apparently evicting the freedmen and re-establishing their homes. William Seabrook died at his Secessionville home in 1870 and by 1872 his 258 acre plantation was divided into three tracts. His widow, Elizabeth, received the 72-acre portion east of Fort Lamar (Charleston County RMC, DB B16, p. 537; Figure 20).

Although impossible to determine with any certainty, Côté (1995:109) suggests that the bombproof near the village and the earthworks near the two surviving houses were fairly quickly leveled as the area was converted back into farmland.

Like other areas of South Carolina, however, it is entirely possible that Secessionville changed little from the late nineteenth century into the early twentieth century. The 1919 topographic map of the area shows four structures — two south of Fort Lamar road at the southwestern edge of the tract, one north of the road and just east of the earthworks, and one north of the road at the eastern end of the tract. Otherwise it is rather unravelling (Figure 21).

The October 1939 aerial photography of the project area (CDV 1-30 shows the eastern third of the peninsula and CDV 1-44 shows the western two-thirds of the tract) might actually be of some assistance in understanding the eventual development of Secessionville had National Archives not transferred the original 9-inch negatives to 35 mm format. Currently the negatives are too blurry and indistinct to offer any except the most general appraisal of the area. For example,

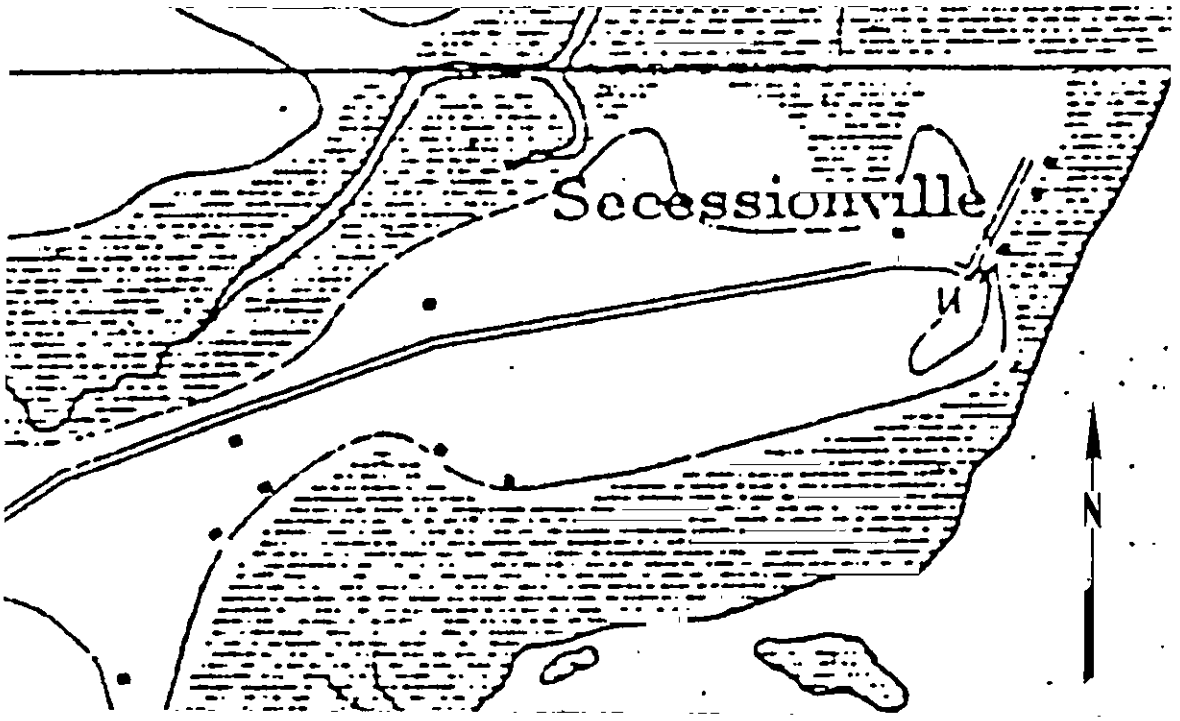


Figure 21. Portion of the 1919 James Island topographic map showing the Secessionville peninsula.

they suggest that the earthworks along the southeastern periphery had already been leveled. Elsewhere there is a dense stand of trees at the edge of cultivated fields.

In 1942 the Seabrook plantation had been re-united and was being passed from the estate of W. Edwin Thayer to Dr. Robert M. Hope. A plat of the 254 acre tract was produced showing some details (Figure 22). In particular it reveals two wharfs — one in the original location of the Riversville steamboat landing and another at the southwest edge of the property. South of Fort Lamar Road it reveals two tenant houses and a barn in the area of the Martschink property previously surveyed. These two tenant houses correspond to those shown on the 1919 topographic sheet (although neither wharf is shown). Also south of the road, in the neck area, are two features labeled "fort," as well as three additional tenant houses and the monument erected in November 1924 (see Côté 1995:109).

Northwest of the neck is a cemetery, which may represent the mass grave of the Union soldiers. It is on the edge of the battlefield and would have been a convenient location for the graveyard.

North of Fort Lamar Road the plat shows only field until the far east end of the tract, where a single tenant house is shown. Just south of this was a barn, while to the southeast are still extant Rivers and Seabrook homes. To the rear of the Seabrook home is a single servant's quarters.

A 1957 aerial photograph (GS-VPL 1-77; see Figure 23) shows a well constructed and paved Fort Lamar Road. Beginning at the west, the graveyard area is cultivated. Only a little further east a dirt road runs south off Fort Lamar Road to the two tenant houses. Just beyond is the first fortification in heavy woods, with the next fortification, also wooded, separated from the first by another dirt road leading to the third tenant

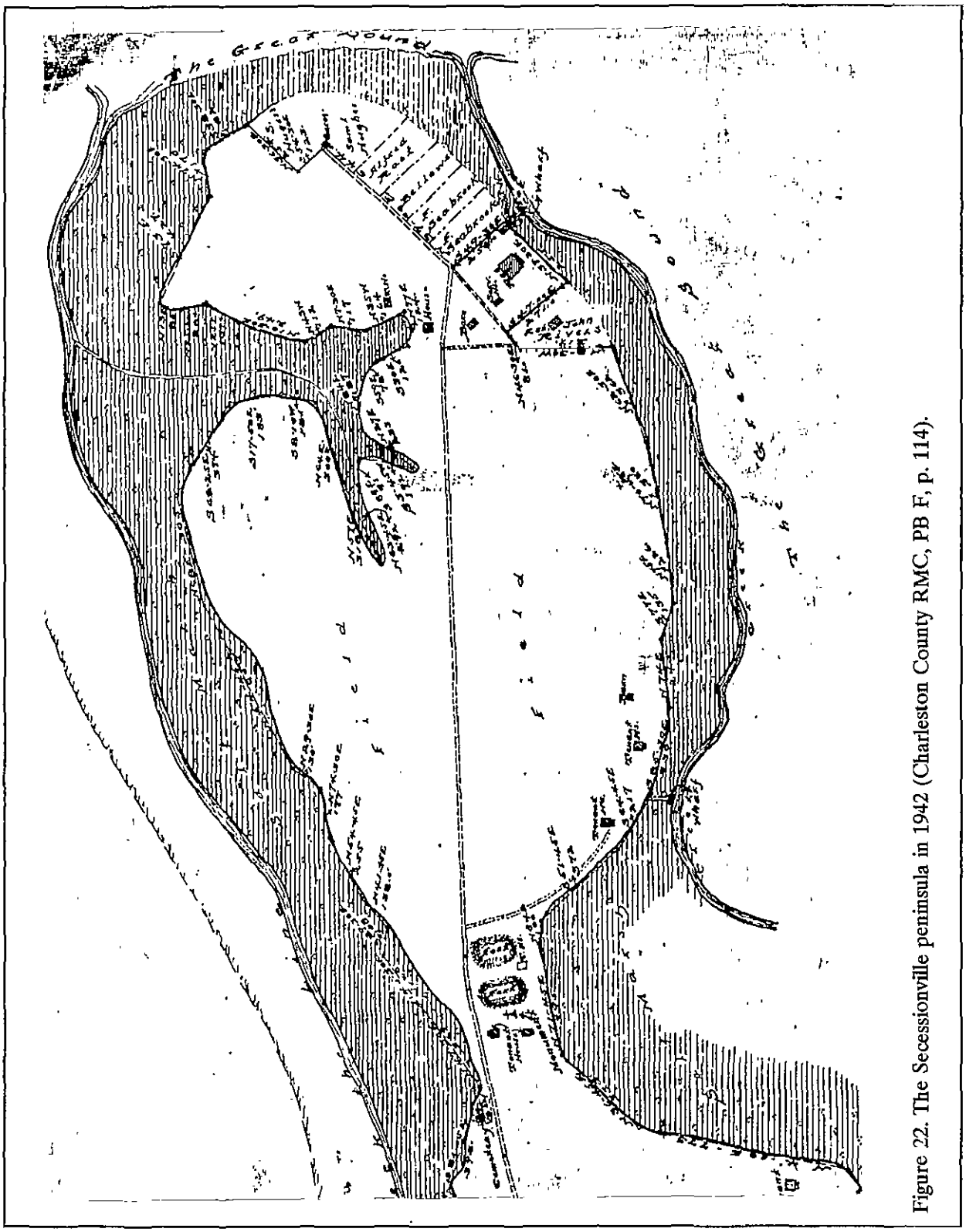


Figure 22. The Secessionville peninsula in 1942 (Charleston County RMC, PB F, p. 114).

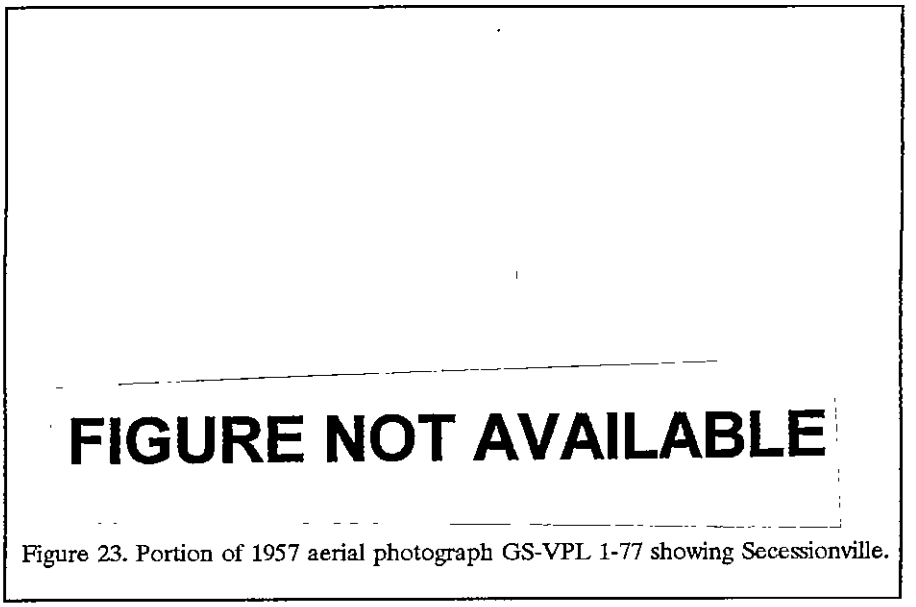


Figure 23. Portion of 1957 aerial photograph GS-VPL 1-77 showing Secessionville.

house.

These two sets of fortifications can be clearly identified by comparing the aerial to Gillmore's plans. The first represents Fort Lamar and its associated earthworks. The paved road punctured the northern point of the earthwork. To the north, along the edge of the marsh the various earthworks are clearly visible and match exactly Gillmore's drawings. The second wooded area represents the southern two-thirds of the "new magazine and bombproof." Its northern third has, by this time, been destroyed by the road. In addition, the old magazine has apparently been leveled, since a road leading to a tenant house is situated in this area.

The two tenant houses along the south edge of the property are also clearly visible in the aerial photograph, and the intervening area is heavily wooded. It is in this area that portions of the water battery were apparently located. The fields between the shore and the paved road, however, are intensively cultivated. There is an open marsh slough to the east — in the area shown as pond in Gillmore's plans. This same area, today, is partially filled in marsh. Moving along the edge of the bank there is only light vegetation and absolutely no indication of the massive earthworks which were located in this area. Clearly they had been filled by 1957.

Arriving at the edge of the cultivated tract there is a dirt road, although there is no indication of the barn shown on the 1942 plat. Nor is there any indication of the tenant house situated across the road from the barn over a decade earlier. By 1957 there were a series of eight houses built along

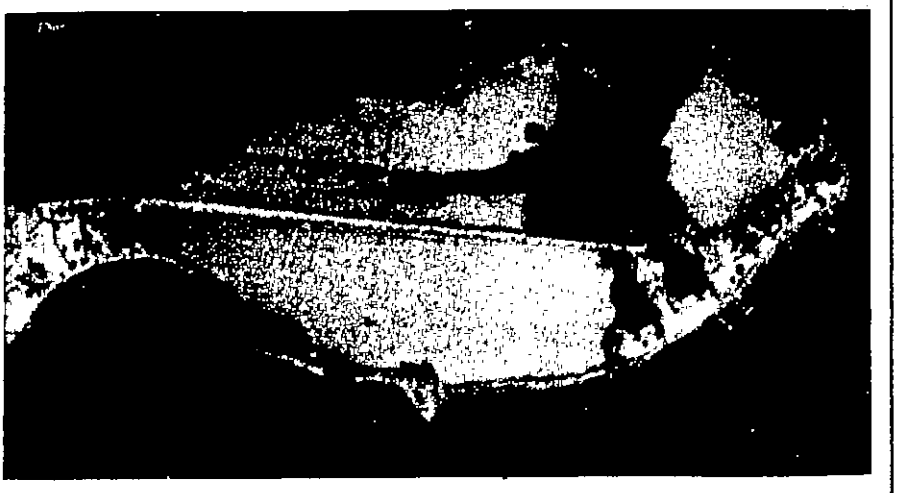


Figure 24. Portion of 1977 aerial photograph GS-VEHU 1-23 showing Secessionville.

the southeast edge of the water, including the Rivers, Seabrook, and Freer-Seabrook houses. The Water Battery in this area has also been leveled, being left intact only north of the houses, where trees mark the location of the unfinished bombproof and gun emplacement drawn by Gillmore. The earthworks completing the northern edge of the Secessionville defenses can still be plainly identified, including a second gun emplacement. At the location of the bridge connecting Secessionville to Clark's Point a while line can be seen in the marsh, revealing the possible presence of a plank road across the marsh.

North of the Fort Lamar Road the project area, in 1957, was heavily cultivated. The only structure is one at the eastern end of the project, situated in the middle of the field. While not shown on the 1942 plat, the structure in the aerial appears to be a tenant house.

Twenty years later, in 1977, an aerial (GS-VEHU 1-23; Figure 24) shows dramatic changes in the project area. The cultivated fields west of the project area have been heavily developed. The cemetery is now totally wooded. Areas which previously revealed the shape and orientation of the battery are now entirely grown up and are revealed only as dense woods. The shoreline growth is denser, except in the eastern area south of Fort Lamar Road where, for some reason, the cultivated field goes almost to the edge of the high ground. The southeastern quadrant of the project area, representing a small field encompassed by marsh to the north, northeast, and northwest, is now heavily wooded. It is likely that this field went out of cultivation because of its small size.

Côté remarks that in 1950, when the 250 acre Secessionville tract was sold to Martschink Realty, the "battlefield . . . was immediately targeted for development as suburban tract housing" (Côté 1995:110). Without venturing into the politics or motives of any of the parties involved, it is clear from even this brief review of recent land-use activities, that the entire parcel was undeveloped as late as 1957 and that the core of the site was clearly preserved as late as 1977. While there has been a gradual development of the project area, this is a trend which the aerial photographs reveal for the entire island. In fact, as recently as 1980 a review of James Island noted:

> Parts of James Island are now in the City of Charleston and are rapidly developing. The island was a rural farming area until about 10 years ago, when an influx of new residents moved to the island. The trend can be directly attributed to expanded port facilities and military bases in Charleston (Mathews et al. 1980:148).

To target one owner, or one development, is perhaps irresponsible, since the same activities have taken place throughout the coastal zone.

FIELD SURVEY AND RESULTS

Field Methodology

The initially proposed field techniques involved the excavation of shovel tests at 100 feet intervals on transects spaced 100 feet apart on those areas of the tract which exhibited high, well-drained soils. Since there were no areas of poorly drained soils anticipated, we did not anticipate a situation where the shovel testing interval would be increased to a greater distance. In addition, the previous discovery of archaeological sites on the study tract further emphasized the need for relatively close interval investigation.

Under normal survey circumstances, if sites are identified through the transect shovel testing, additional tests are normally excavated at closer intervals to obtain data on site boundaries, artifact quantity and diversity, site integrity, and temporal affiliation. However, since archaeological sites, with defined boundaries, had been previously recorded for the project area (see Figure 6) using shovel testing, we felt that additional close interval testing would be unnecessary.

As a compromise measure, allowing greater data recovery than traditional shovel testing at 100 foot intervals on transects spaced 100 feet apart, much of the project area was examined using shovel tests at 50 foot intervals on transects every 100 feet. In the southeast quadrant of the survey tract, where we were particularly concerned that the previous study had not located a posited early antebellum slave settlement, we increased both the shovel tests and the transects to 50 foot intervals.

All soil would be screened through ¼-inch mesh, with each test numbered sequentially. Each test would measure about 1 foot square and would normally be taken to subsoil. All cultural remains would be bagged by provenience, with the exception of brick, mortar, and shell, which would be noted and discarded in the field. Notes would be maintained for profiles at any sites encountered.

The information required for completion of South Carolina Institute of Archaeology and Anthropology site forms would be collected and photographs would be taken, if warranted in the opinion of the field director. For this survey, an archaeological site was defined as three or more artifacts within a 200 foot area. Modern garbage (dating to the past fifty years) was generally disregarded unless associated with earlier remains.

In addition, approximately 75% of the survey tract had surface visibility at or above 75%. In these areas we conducted the normal shovel test survey, but also included a pedestrian survey. Initially we anticipated flagging individual artifacts, allowing for the determination of concentrations. We rapidly discovered, however, that the artifacts were widely dispersed, with no clear concentrations. The plotting of individual artifacts was abandoned for the identification, instead, of maximum spread or dispersion of materials. Positive shovel tests would be used to plot the site core and the surface scatter would be used to identify the maximum extent of the site. Given the history of plowing, the actual site limits probably lie somewhere between these minimum and maximum boundaries.

Finally, in an effort to further refine the site survey, we incorporated a metal detector survey into this research. This work was conducted using a Tesoro Bandito II™ with an 8-inch concentric soil (electromagnetic type operating at 10KHz). The instrument has the capability to operate in either an all metal mode or discriminate mode (which eliminates ferrous metal response). The all metal mode is the industry standard VFL type which does not require motion of the search coil for proper operation. The discriminate mode is based on motion of the search coil, but allows control over the detector's response to ferrous metals.

Since the goal of this work was to explore the density of *all* artifacts, not just to locate military items (such as brass buttons or lead ammunition), the instrument was initially operated in an all metal mode. This, however, produced an extraordinary number of very strong positive hits. We excavated a number of these, to determine the types of materials being identified and without exception we were identifying aluminum beer cans and other recent garbage.

In an attempt to eliminate as much of this trash as possible, we switched to the discriminate mode. We found that we were still flooded with false hits, primarily aluminum fragments which cannot be eliminated. This situation was previously noted by Butler during his survey of the area south of Fort Lamar Road:

> The usefulness of the metal detector, however, was hampered by hundreds (if not thousands) of aluminum can fragments. Aluminum cannot be rejected by discrimination. Apparently the project area is heavily used by dove hunters who annually discard their aluminum beer and pop cans on the surface. The cans are subsequently cut into pieces when the fields are bushhogged and disked into the ground when the surface is plowed (Butler 1994:58).

As in his survey area, the fields north of Fort Lamar Road are used for bird hunting and the quantity of aluminum is high. Just as in Butler's study, we did recovered cut nails and other obviously historic materials, but their density was so low compared to the trash that this technique was abandoned.

Metal detecting was attempted in the wooded areas, where we anticipated a lower incidence of aluminum discard, but the vegetation was too dense to allow adequate movement. Additional metal detecting survey, however, may be appropriate once the wooded areas are opened for development.

A total of 38 transects were shovel tested (Figure 25). Those in the western half and northeastern quarter of the site were spaced 100 feet apart, with shovel tests excavated every 50 feet. These areas were also relatively open, allowing the examination of the ground surface. The only exceptions was the thin wind row between the north and south fields in the western portion of the study area, the wind row between the eastern and western portions of the northern fields, and the thick woods at the eastern tip of the study tract where the ground is relatively low. The northeastern field had been recently disked and planted when the study began, allowing 100% visibility. The northwestern field was fallow, but still provided 80 to 85% visibility. The southwestern field had been allowed to be fallow for several years and large piles of dead vegetation were present (perhaps representing Hugo or other storm debris). In this field surface visibility varied from about 50% to near 80%. A total of 136 shovel tests were excavated in these areas. An additional four shovel tests were intuitively excavated in the wooded area at the eastern edge of the project area.

As previously mentioned, the southeastern quadrant of the study area was explored using transects and shovel tests at 50 foot intervals, with a total of 92 shovel tests excavated in this area. Not included are an additional eight shovel tests excavated around a brick foundation located just outside the survey boundaries. All of this area is densely overgrown with the exception of a small field which exhibits 5 to 8 year old second growth. The denser areas in this quadrant were initially opened up using a small bulldozer to knock down the vines and smaller trees. The blade was kept off the ground, so there would be no earth movement. In addition, no trees were grubbed out. After the area was somewhat opened, lines were cut by hand with bushaxes to allow shovel testing. This level of effort was necessary to allow any degree of intensive testing.

If areas of standing water or high marsh are excluded, the survey tract is reduced to approximately 21 acres, resulting in about 10.8 shovel tests per acre.

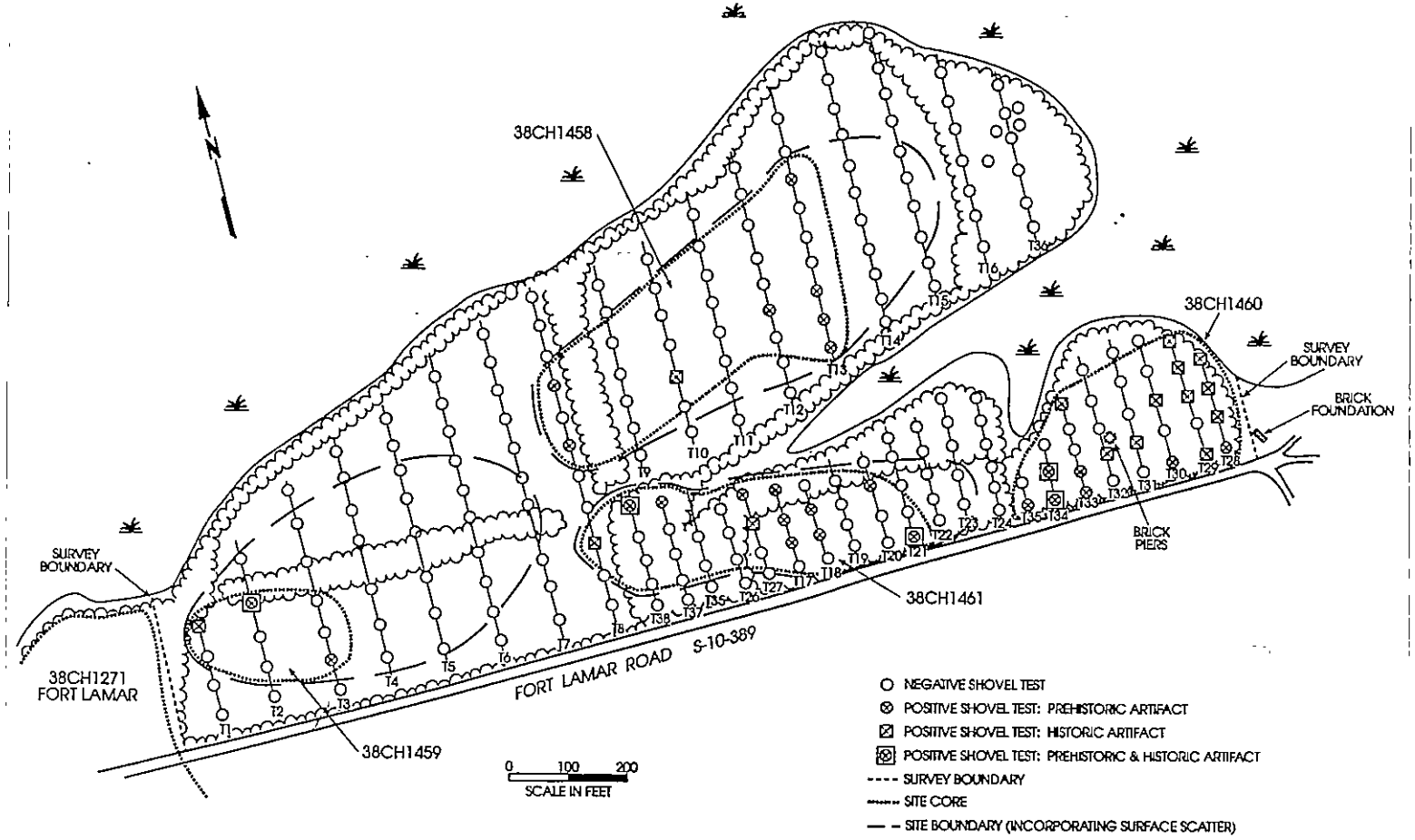


Figure 25. Transects and identified sites in project area. Also shown are the two structural ruins found during the survey.

Laboratory Methodology

The cleaning of the recovered artifacts was begun in Charleston during the field work and completed in Columbia. Cataloging of the specimens was conducted at the Chicora laboratories in Columbia. All items were assessed for conservation needs during this laboratory processing. No items were encountered which warranted conservation and all items were either curated in their current condition or were drawn and discarded (as noted on the specimen catalogs).

These collections were accepted for curation by the South Carolina Institute of Archaeology and Anthropology and are curated under their individual site numbers, using this institutions accessioning system. Specimens were packed in plastic bags with an archival tag in each bag indicating provenience information and boxed. Field notes were prepared on pH neutral, alkaline buffered paper and photographic materials were processed to archival standards. All original field notes, with archival copies, are also curated with this facility.

Analysis of the collections followed professionally accepted standards with a level of intensity suitable to the quantity and quality of the remains. Prehistoric pottery was classified using common coastal South Carolina typologies (DePratter 1979; Trinkley 1983). The temporal, cultural, and typological classifications of the historic remains follow Noel Hume (1970), Miller (1980, 1991), Price (1970), and South (1977). In general, none of the sites produced especially large collections, so analysis is limited to simple, descriptive statements adequate to support assessments of eligibility.

Results of the Survey

As a result of the field survey four previously identified sites, 38CH1458, 38CH1459, 38CH1460, and 38CH1461 were relocated and assessed. No new sites were identified, although the boundaries of these previously identified sites have been modified. Each of these sites will be briefly explored in this section.

38CH1458

This site, as previously discussed, was first identified by a Brockington and Associates survey in 1992, but no report was produced. The current survey only slightly changed the size and location of the site, so that its central UTM coordinates are still E599180 N3619080 and the site is estimated to encompass an area measuring 800 feet southwest-northeast by 320 feet northwest-southeast (Figure 25). The site core, defined by the area with subsurface remains, is slightly smaller, encompassing 520 feet southwest-northeast by 300 feet northwest-southeast. The most significant difference between this study and the original survey is that we found no materials in the woods at the tip of the peninsula. In addition, the site was extended slightly westward, across an artificial boundary of a windrow. The current site boundaries appear to more closely resemble those established by Heritage Trust for their Locus 6 (Judge 1992).

The site is situated on the sandy ridge which runs through this field, although it is barely perceptible (Figure 26). The elevation is just under 10 feet above mean sea level (AMSL). The topography slopes slightly toward the marsh to the north and towards the slough to the south. Likewise the area at the northeastern tip of the field is also lower, probably accounting for this area being grown up and not cultivated.

Soils are classified as Wando Series, and this is reflected in the soil profiles which revealed very sandy soils with distinct A horizons laying conformably on a C horizon subsoil. The typical shovel test reveals 0.8 to upwards of 1.0 foot of dark brown sand (7.5YR3/2) on a brownish yellow (10YR6/6) sand. Shovel tests were typically excavated 0.3 to 0.4 foot into this subsoil to ascertain if there was an intact prehistoric lens.

Vegetation includes both areas of second growth forest (at the marsh edges) and cultivated fields. Although a particularly dense second growth forest is present at the peninsula tip, no artifacts were recovered from any of the shovel tests in this area. The vast majority of the site consists of open cultivated fields. At the time of the initial survey

they had been freshly disked and were planted in grass for dove hunting, allowing for nearly 100% visibility. By the time the site was photographed the grass had grown several inches and visibility was reduced to about 70%.

The site was explored by Transects 8 through 16, plus Transect 36. A total of 75 shovel tests were excavated in the general area. Of these eight, or about 11% were positive. As can be seen in Figure 25, these positive tests are widely dispersed, accounting for the relatively large site "core." Surface materials were more widely scattered across the field, but even when there was excellent surface visibility the density was low. There is, however, a rather common but not dense, smear of shell throughout the field, again with no clear concentrations.

Figure 26. View of 38CH1459 looking to the northeast.

In comparison, 16 of the initial survey's 80 shovel tests were positive, accounting for 20%. Examination of Figure 6 reveals that even the Brockington and Associates survey revealed a thin dispersion of materials across the field, with no clear concentrations of material.

Seven of the shovel tests from the current survey produced only prehistoric remains — 11 sherds. All of these were small, under 1-inch in diameter, and therefore not suitable for any detailed analysis. A quick examination, however, reveals that one likely represents a Deptford Check Stamped, while three are likely Pee Dee Complicated Stamped sherds. The others appear to eroded Woodland specimens. The one historic ceramic collected from a shovel test was an undecorated whiteware, indicative only of the mid nineteenth through early twentieth centuries.

Materials collected from the surface include eight small prehistoric sherds, six undecorated whiteware ceramics, two ginger beer bottle fragments, and one animal bone. The bulk of these materials came from the western half of the site, further reinforcing our failure to identify any materials in the wooded peninsula.

Although no catalogs for the initial survey were available (the site form specifies only the recovery of prehistoric ceramics, nineteenth century ceramics and glass, and brick fragments), we do known that 10 of the 16 positive shovel tests produced only prehistoric remains, while six produced only historic material. In general, this collection seems consistent with the materials from the current survey.

As shown on Figure 25, it appears there may be a break in the surface scatter between sites 38CH1458 and 38CH1459, although this appears to be west (not east) of the windrow. Nevertheless, the two sites do blur together and remain distinct in these discussions based only on the original survey and the tendency for slightly different proportions of historic and prehistoric remains. In a similar manner, the materials at 38CH1458 are

distinct from those at 38CH1461 only because of the natural slough which separates parts of the two sites. This is perhaps reflected in these two areas being combined into Locus 6 by Heritage Trust (Judge 1992). In general, the materials in these fields are thinly dispersed by years of plowing.

There is no particularly good published context for understanding 38CH1458, although this type of site is well known to archaeologists who spend any time walking coastal fields. The thin smear of shell and the occasional sherd are nearly ubiquitous. It is likely that the site originally included a number of small shell middens, perhaps somewhat like the small midden identified at 38CH1219 on nearby Kiawah Island (Trinkley et al. 1995).[1] As they were plowed, dispersed, and mixed, they left a signature which is distinct, but not especially informative. Not only is pottery badly fragmented, making even typological assessment difficult, but studies of vessel form or identification of cooking residues are practically impossible. Constant plowing also dramatically reduces the preservation of both zooarchaeological and ethnobotanical remains, even ignoring the loss of clear context caused by plow movement.

While it is possible for subsurface remains to be present, even in heavily plowed fields, we identified no evidence of this at 38CH1458. There were no features identified in the shovel tests. There does not seem to be any concentration of material suggesting features still be plowed out by the occasional cultivation of the field. Nor are there any large artifacts which might suggest an undetected point of origin somewhere in the field.

These findings parallel those of the original survey, which noted on the site form that there was "no evidence of intact cultural deposits" coupled with "low artifact density and diversity." We concur with the original survey's recommendation that the site is not eligible for inclusion on the National Register of Historic Places.

[1] At this site a 400 square foot block excavation revealed portions of three shell middens. While 1080 sherds were recovered, only 99 or 9.2% were over 1-inch in size — and this midden exhibited no evidence of plowing.

38CH1459

This site was also first identified by the Brockington and Associates survey in 1992, but again no report was produced. The current survey maintained very similar site boundaries, based primarily on the surface scatter observed during the study — artifacts from shovel tests were very uncommon. The central UTM coordinates are E599860 N3618920 and the site is estimated to encompass an area measuring 650 feet southwest-northeast by 400 feet northwest-southeast (Figure 25). The site core, defined by the area with subsurface remains, is considerably smaller, encompassing 300 feet east-west by 175 feet north-south.

The original survey identified a site which spanned two different field areas and extended westward into the wooded area associated with 38CH1271 — Fort Lamar. This site included the two loci identified as 2 and 4 by the Heritage Trust study (Judge 1992). The current study diverges from these boundaries by limiting the site to the open field east of the woodsline, so there is no overlap between 38CH1271 and 38CH1459. As discussed below, there are also differences between the density of materials recovered from the two surveys.

The site is situated on a barely perceptible sand ridge which runs through this field, likely representing a remnant eroded beach ridge (see Figure 4). The elevation is just under 10 feet AMSL. The topography slopes slightly to the marsh toward the north and may also be affected by soil movement associated with the Fort Lamar fortifications about 300 feet to the west.

Soils are classified as Wando Series. Shovel tests revealed an Ap horizon of 0.9 to 1.0 foot of dark brown sand (7.5YR3/2) overlying a brownish yellow (10YR6/6) C horizon sand. Shovel tests were typically excavated 0.3 to 0.4 foot into this subsoil to ascertain if there was an intact prehistoric lens.

Vegetation includes both areas of second growth forest (at the marsh edge to the north and along the windrow bisecting the site). The northern half of the site consists of open cultivated fields. At the time of the initial survey they had not been disked for planting and contained the stubble from the previous season, resulting in something approaching 80% visibility. At the conclusion of this work they were grown up in a light grass, with 60% visibility. The southern half of the fields appeared to contain debris piles, perhaps relating to Hurricane Hugo or some other storm. This field had not been cultivated for several years and its visibility was limited to perhaps 40 or 50%.

The site was explored by Transects 1 through 7. A total of 51 shovel tests were excavated in the general area. Of these three, or about 6% were positive. As can be seen in Figure 25, these positive tests are clustered in the lower or southwestern corner of the site, in close proximity to Fort Lamar (38CH1271). Surface materials were more widely scattered across the field, but even when there was excellent surface visibility the density was low. There is, however, a rather common but not dense, smear of shell throughout the field, again with no clear concentrations.

In comparison, 24 of the initial survey's 75 shovel tests were positive, accounting for 32%. Examination of Figure 6 reveals that six of these positive tests (25%) are situated outside the current survey tract, in the area of 38CH1271. An additional eight of these original positive shovel tests (representing 33% of the total or 45% of those outside the Fort Lamar area) are within what we have defined as the site core. Beyond this core the remaining seven positive shovel tests are relatively dispersed, with no clear concentrations.

Of the three positive shovel tests in this survey, one produced only prehistoric remains — a single probable Santee Cord Marked sherd. Another test produced only historic remains — a single alkaline glazed stoneware ceramic and a machine cut nail fragment. The last shovel test produced both prehistoric and historic remains, including four small (under 1-inch in diameter) sherds, one Pee Dee Complicated Stamped sherd, and one machine cut nail fragment.

Materials collected from the southern half of the site include one chert secondary flake and three small prehistoric sherds. The historic remains from this portion of the site include one fragment of "black" glass, two fragments of amethyst glass, and one black lead glazed ceramic. The northern site area produced six small prehistoric sherds, eight fragments of "black" bottle glass, one fragment of green bottle glass, and one ginger beer bottle fragment. In sum, these prehistoric materials are representative of a Middle Woodland to Mississippian occupation. The historic materials are consistent with those expected from mid-nineteenth century sites, although the amethyst glass *may* suggest materials as late as the first quarter of the twentieth century.

Although no catalogs for the initial survey were available (the site form specifies only the recovery of prehistoric ceramics, nineteenth century ceramics and glass, and brick fragments), we do known that 13 of the 27 positive shovel tests produced only prehistoric remains, while 10 produced only historic material. An additional four shovel tests yielded both prehistoric and historic materials.

This site appears to include a thin smear of prehistoric materials coupled with remains characteristic of Civil War sites (such as "black" glass from beer and stout bottles and ginger beer bottles). The presence of a small quantity of possible later material in this study (and presumably in the earlier survey as well), may support the comment made as a result of the initial survey that, "most of the artifacts appear to be late 19th/early 20th century" (S.C. Institute of Archaeology and Anthropology, University of South Carolina, 38CH1459 site form). This lead to the observation that "early 20th century maps show a single structure in this portion of the tract," with the suggestion that the materials found in the survey derive from this tenant house and not Fort Lamar.

Many of the observations regarding site formation of 38CH1458 are also applicable to this site. It is likely that the prehistoric component is

associated with plowed down middens — accounting for the thin smear of shell, the abundance of small sherds, and the low diversity of prehistoric artifacts.

This historic component is somewhat more difficult to totally explain. The referenced structure is shown on the 1919 topographic map (Figure 21) and the 1957 aerial photograph (Figure 23), but is situated in the wooded area west of the study tract and currently identified as 38CH1271. Nevertheless, it is possible that some of the smear in the field represents side yard refuse from this tenant house. Some of the materials, however, are more likely associated with the Civil War history of the site. Unfortunately, it is often difficult to separate assemblages from the bellum and postbellum periods.

What is perhaps most difficult to explain is the difference between proportions of positive tests (6% compared to 32%) in the two surveys, conducted using similar methodology only four years apart. There is no particularly good published context for understanding the range of variation which may be obtained in shovel test surveys. All other aspects of the two studies being similar, we must be seeing little more than statistically variability. This should provide a caution on the validity, or at least the reproducibility, of the disciplines shovel testing strategy.

Even if we use the higher recovery rates identified by the initial survey (excluding those positive hits off the survey tract, in what is called 38CH1271), the site still exhibits a sparse distribution of materials. The initial survey, using the denser data, still observed that the site exhibits "low artifact diversity and density, [with] no evidence of intact cultural deposits" (S.C. Institute of Archaeology and Anthropology, University of South Carolina, 38CH1459 site form).

As in the case of 38CH1458, we see no evidence of subsurface features — no large sherds, no concentrations of animal bone or shell, and no deep shovel tests. The site appears to reflect an intensively plowed prehistoric midden (or middens) with the latter addition of sheet midden from either the Civil War earthworks or a tenant occupation (perhaps both).

We concur with the original survey's recommendation that the site is not eligible for inclusion on the National Register of Historic Places.

38CH1460

This was the third of the four sites in the study area identified by the Brockington and Associates survey in 1992, although the only information concerning the site comes from the site form. The current survey maintained very similar site boundaries, based entirely on subsurface materials recovered from shovel testing. The central UTM coordinates are E599330 N3618970 and the site is estimated to encompass an area measuring 400 feet east-west by 225 feet north-south (Figure 25).

The original survey identified a site which was essentially more linear, extending west into an open area and east into an area which is off the current survey tract (Figure 6). This site was not incorporated into any of the Heritage Trust loci (Judge 1992), most likely because this area is densely wooded and was amenable to a reconnaissance study. The current study found no evidence of the site extending further to the west. While a relatively modern brick foundation was found further to east, this was situated outside the study tract and does not appear to be associated with the artifacts recovered from the site. We have extended the boundaries northward, almost to the edge of the marsh, based on the dispersion of materials in the shovel tests.

The site is situated on an interior terrace overlooking a marsh slough to the north, but the topography is level, with the ground very gradually sloping into the marsh. Elevations are just over 10 feet AMSL.

Soils are classified as Wando Series. Shovel tests revealed an Ap horizon of 0.9 foot of dark brown sand (7.5YR3/2) overlying a brownish yellow (10YR6/6) C horizon sand. Shovel tests

Figure 27. View of a cut transect at 38CH1460 showing the dense vegetation.

were typically excavated 0.3 to 0.4 foot into this subsoil to ascertain if there was an intact prehistoric lens.

Vegetation is very dense second growth forest consisting of pine and mixed hardwoods (Figure 27) which required bushaxing lines for the survey transects. This area went out of cultivation sometime after 1955 (see Figure 23) and was totally overgrown by 1975 (see Figure 24). Visibility during this survey was 0%. While no evidence of the previous cultivation (such as remnant plow ridges) could be seen in the survey area, we did encounter a number of the fence lines shown on the 1955 aerial photograph.

Also in the middle of this tract we encountered the remains of the house observed in this aerial. The structure today consists of concrete block piers and rotten floor joists of machine cut lumber evidencing wire nails (Figure 28). This structure consists of a central core measuring 14 feet east-west by 24 feet north-south. At the east and west ends are bays measuring 14 feet north-south by 12 feet east-west, giving the structure overall dimensions of 38 feet east-west by 24 feet north-south (Figure 29). This structure may be the "modern brick chimney base? and footings" reported by the original survey (S.C. Institute of Archaeology and Anthropology, University of South Carolina, 38CH1460 site form), although the site form fails to show the location of the find. There was no chimney base or fall associated with this structure. While a chimney may have been present, there is no surface indications of it today. Consequently, we cannot confirm that this was a domestic structure. A series of eight shovel tests excavated at cardinal directions around the structure failed to

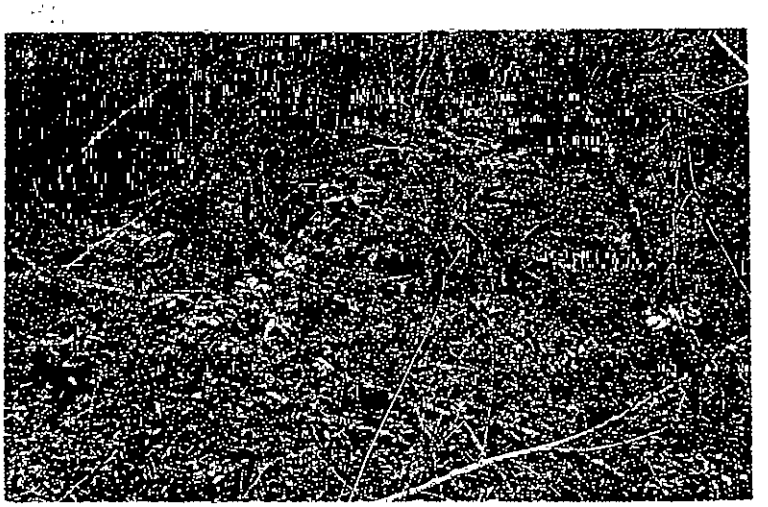


Figure 28. Modern structure at 38CH1460, view to the northeast.

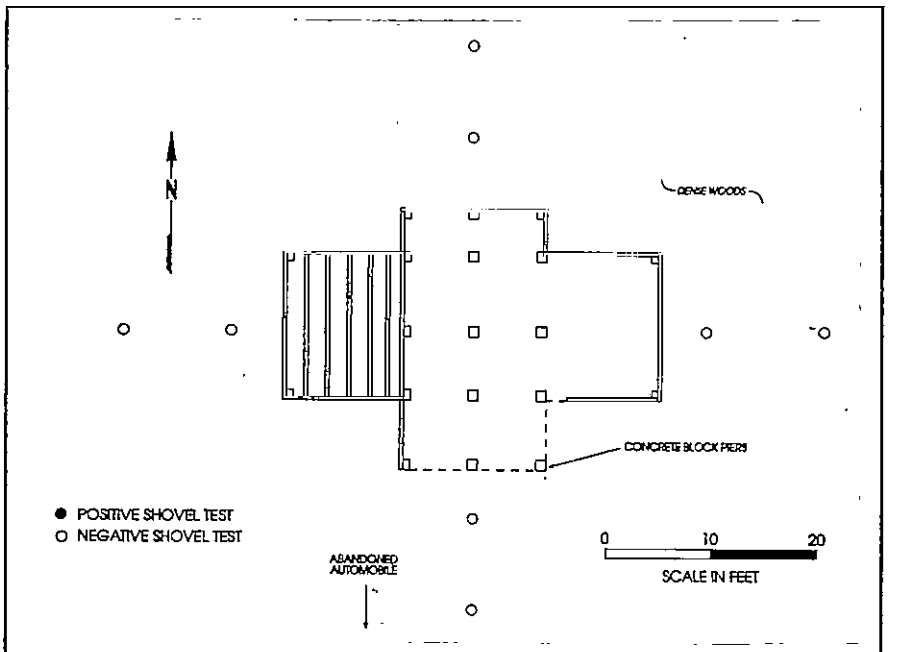


Figure 29. Plan view of modern structure at 38CH1460.

reveal any artifacts. About 50 feet to the south, however, there is an abandoned (ca. 1940) automobile.

The site was explored by Transects 28 through 35. A total of 34 shovel tests were excavated in the general area. Of these 18, or over 51% were positive. As can be seen in Figure 25, these positive tests are spread throughout the site area, with some loose clustering in the northeast and southwest quadrants of the site area. There is no concentration of materials around the structure.

In comparison, only six of the initial survey's 35 shovel tests were positive, accounting for only 17%. Examination of Figure 6 reveals that one of these positive tests is situated outside the current survey tract, reducing the proportion of positive tests to 14%. These positive tests are fairly evenly spread over the entire area, with no clear concentrations.

These findings are interesting since they present us with a site which produced a very low density of artifacts during the initial survey, while a significantly higher density was identified in this subsequent study. This is exactly the opposite of the findings at 38CH1459 and provides additional support to our assessment that we are observing the normal range of variation in shovel testing studies.

Of the 18 positive shovel tests in this survey, five produced only prehistoric remains — including a single quartz fragment (probably shatter); three small, probable Woodland Phase sherds; and a small Pee Dee Complicated Stamped sherd. Eleven tests produced only historic materials, including one black lead glazed ceramic, one coarse read earthenware ceramic, one undecorated pearlware ceramic, one undecorated whiteware ceramic, one annular whiteware ceramic, two fragments of clear glass, one fragment of light green glass, one fragment of melted glass (with adhering shell-lime mortar), one fragment of window glass, five unidentifiable nail fragments, one kaolin pipe stem fragment, and two unidentifiable iron fragments. Two additional tests produced both prehistoric remains (exclusively small sherds) and historic items (including one lead glazed slipware ceramic and one unidentifiable nail fragment). Historic remains dominate the collection, accounting for 20 specimens, while only eight prehistoric items were recovered.

The prehistoric materials are consistent with those found elsewhere in the survey tract. All are small (under 1-inch in diameter) and most likely represent Woodland types, probably Deptford. A single Pee Dee Complicated Stamped sherd was encountered. The size of these remains suggest they have been fragmented by the intensive cultivation — an assessment further supported by their generally eroded condition. The historic remains are entirely consistent with an early

nineteenth century occupation. No materials were found which appear to represent debris associated with the structure in the survey tract (i.e., plastic items, amethyst glass, canning jar fragments, or milk glass).

Although no catalogs for the initial survey were available (the site form specifies only the recovery of prehistoric ceramics, nineteenth century ceramics and glass, and brick fragments), we do known that five of the six positive shovel tests produced only historic remains, while the last test yielded only prehistoric items. These items, contrary to the findings of the current study, were described as "20th century historic debris" and were thought to be associated with the abandoned structure (S.C. Institute of Archaeology and Anthropology, University of South Carolina, 38CH1460 site form).

This site is of particular importance to the survey since it is the documented location of a mid to late antebellum slave settlement. Likely used during the Rivers, Bailey, and perhaps Hill ownership of the tract, an 1841 plat (Figure 11) shows six structures in this area. When this plat is compared to the distribution of positive shovel tests there is a rather remarkable correlation (given the sensitivity of 50-foot interval shovel testing). Just as there are no structures shown in the northwest quadrant of this landform on the 1841 plat, the current survey produced no positive tests in this same area. There are, however, a cluster of positive tests along the eastern edge of the landform, where three of the six structures were situated.

In spite of this very good correlation, the current survey did not provide the data to either identify individual structural locations or determine the potential for subsurface remains. Although we know (from both historic documents and our examination of other sites on the tract) that cultivation in this area has been intense, the tight clustering of artifacts and the correction of these clusters with the historic plat suggest that cultivation in this area may not have been as severe. Perhaps the proximity of the modern structure and the division of the landform into several fenced lots precluded the intensive cultivation which characterizes other sections of this survey tract. Regardless, there is sufficient ambiguity that we recommend additional testing to more closely identify structure locations and evaluate subsurface remains.

If individual structure locations can be ascertained and if there is any potential for recovery of intact architectural or refuse features, or even sheet middens, then the site may be very significant in our study of African-American slaves associated with small planters. Richard Côté provides us with an excellent overview of the owners during this period. Henry F. Bailey, for example, was a store keeper and small cotton farmer who had 10 slaves in 1850. Côté notes that the purchase in 1838 was "odd, for he didn't seem to be wealthy enough to afford the $4,500 purchase price" (Côté 1995:36). The following owner, Joseph Washington Hills, who acquired the tract in 1845 was almost as small — owning 32 slaves and producing only 9 bales of cotton in 1850.

This site may provide the opportunity to explore the lives and condition of slavery typical of the small planter — and far more typical of the conditions under which the vast majority of bondmen found themselves.

Consequently, we recommend this site as potentially eligible for inclusion on the National Register of Historic Places. The additional testing should focus on two methodologies. First, the site area should be auger or shovel tested at close intervals, perhaps 20 foot intervals. This, we believe, has a fairly good chance of identifying specific structural locations, especially when combined with a metal detector survey. Second, once several structures have been identified, between three and six 5-foot units should be excavated in order to evaluate artifact density and diversity, determine the potential for sheet midden and recovery of floral and faunal remains, examine the area for architectural features, and evaluate the potential for recovery of other features. Once this additional data is in hand it should be possible to determine the eligibility of the site. We further recommend that this work not take place until this site has been opened up, allowing free movement.

Attempting this level of testing work under the current vegetative conditions would be extremely time consuming.

38CH1461

This site was first identified by the 1992 Brockington and Associates survey, but is only known through the site form filed at the S.C. Institute of Archaeology and Anthropology. The current survey extends the site boundaries to the west, to incorporate portions of a densely wooded tract which was not included in the original site boundaries as well as a very small portion of the open field to the west. The central UTM coordinates are E599140 N3618930 and the site is estimated to encompass an area measuring 700 feet east-west by 200 feet north-south (Figure 25). The site core incorporates most of this area, measuring about 600 feet east-west by 200 feet north-south.

Much of this site (excepting about the eastern quarter) is within Locus 6 of the Heritage Trust's reconnaissance study (Judge 1992). The materials recovered from 38CH1461 are very similar to those found at 38CH1458, suggesting that the separation of these two sites is somewhat arbitrary. It seems likely that both focused on the either the open marsh or the marsh slough.

The site is situated on a relatively level interior plain overlooking a small marsh slough to the north. The elevation is about 10 feet AMSL. The topography slopes slightly toward the marsh to the north.

Soils are classified as Seabrook Series, and this is generally reflected in the soil profiles which revealed an Ap horizon of very dark grayish-brown (10YR3/2) sandy loam about 0.8 to 0.9 foot in depth overlying a dark brown (10YR4/3) sand C horizon subsoil. Like elsewhere on the study tract these shovel tests typically penetrated the C horizon soils by as much as 0.4 foot to determine if there was evidence for an intact prehistoric lens or zone.

Vegetation includes both areas of second growth forest (at the western, northwestern, and northern edges of the site) and also fallow fields (primarily in the southeastern corner of the site). The forested areas are particularly dense, requiring the use of a bushaxe to create transect lines. Even the fallow field, however, is quickly becoming overgrown (Figure 30). All of this area was open cultivated fields as late as 1977 (Figure 24), although by the late 1980s it was necessary to bulldoze the currently fallow field open (Frank Martischank, personal communication 1996). Surface visibility in the fallow field was about 20%, while the wooded area offered no visibility.

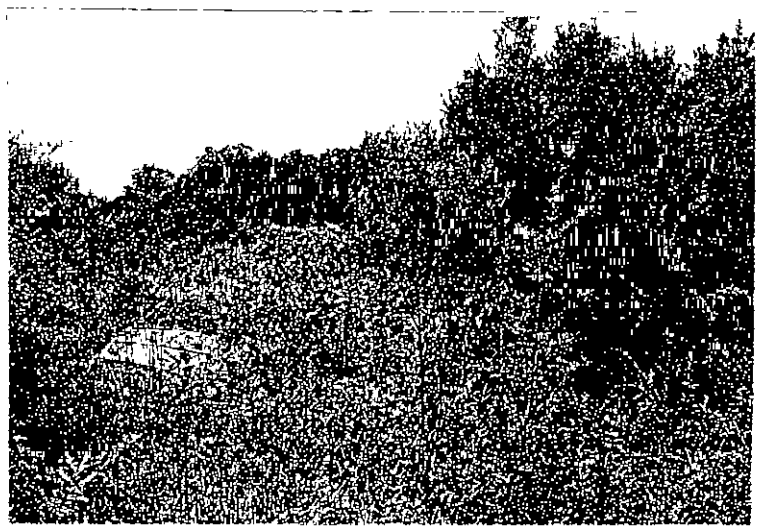


Figure 30. Fallow field at 38CH1461, view to the northwest.

The site was explored by Transects 8, 17-23, and 35-38. A total of 55 shovel tests were excavated in the general area. Of these 12, or about 22% were positive. As can be seen in Figure

25, these positive tests tend to cluster toward the marsh slough and the northern portion of the site, in closest proximity to 38CH1458. Surface materials were very uncommon (at least partially because of the poor surface visibility) and were widely scattered. There is, however, a widely scattered, but very thin, smear of shell across the site.

In comparison, the initial Brockington and Associates survey excavated only 15 shovel tests in the site area and none of these yielded any remains. The four artifacts they recovered — all dating from the Civil War — were recovered in the course of a metal detector survey. Examination of Figure 6 reveals that the Brockington and Associates' site boundary at 38CH1461 was based entirely on the dispersion of these remains.

Eight of the shovel tests from the current survey produced only prehistoric remains — 10 sherds. All of these were small, under 1-inch in diameter, and therefore not suitable for any detailed analysis. A quick examination, however, reveals that one is a Deptford Check Stamped and one is a Pee Dee rim. The remainder all appear to represent Woodland phase materials, most likely Deptford. They are, however, highly eroded.

Two shovel tests yielded only historic materials — one produced a fragment of window glass and a unidentifiable nail fragment, while another produced an animal bone (classified as historic based on its good condition). The final two tests produced both prehistoric and historic remains — four small sherds (one is a Pee Dee Complicated Stamped sherd), two fragments of window glass, and five unidentifiable nail fragments.

Materials collected from the surface include one undecorated porcelain ceramic and two fragments of "black" bottle glass.

The prehistoric remains suggest a wide temporal range, not unlike the other sites identified in the survey. They are, however, highly fragmented and highly dispersed. The historic remains are in somewhat better condition (i.e., not as fragmented), but are equally dispersed. They suggest, in the most general fashion, a nineteenth century occupation — consistent with the Brockington study which found only Civil War items (two Union Minie balls, one fired Henry carbine[2] cartridge, and one brass accoutrement rivet).

The prehistoric materials, like those from nearby site 38CH1458, are small, dispersed, and highly fragmented. There is no indication of subsurface remains — no large sherds which might have been recently plowed out of a feature, no smears of dark soil which might suggest intact sheet midden, and no intact piles of shell in the woods line of the site adjacent to the marsh slough. The prehistoric remains appear to be items from small shell middens which have been thoroughly plowed. As such it is unlikely that these materials can address any of the many significant research questions which might be posed for the Woodland and Mississippian periods.

The original survey commented that the site was a "scatter of four military artifacts . . . representing artifacts lost during military occupation of Fort Lamar or its later occupation" (S.C. Institute of Archaeology and Anthropology, University of South Carolina, 38CH1461 site form). Certainly this seems to be an adequate explanation of the items which that survey recovered. Yet, it seems insufficient to explain the additional items revealed by this survey.

Some of the historic remains are domestic

[2] The Henry Repeating Rifle was a .44 caliber weapon which carried 15 rounds in its magazine. A lever action simultaneously cocked the rifle, ejected the spent case, and put a fresh cartridge in the chamber. Kin to the perhaps better known Spencer, these repeaters were introduced during the final two years of the war to relatively few Federal regiments — in all only 15,000 Spencer and Henry rifles were purchased by the Federal Ordinance Department. The power in the Henry's copper-cased cartridges was impervious to moisture and the primer was in the cartridge's rim, eliminating the need for a percussion cap.

in nature — the porcelain ceramic for example. More appear to be structural — the window glass and nails, for example. The most "military" looking items are the bottle glass fragments recovered from the surface. Yet these items are, like the prehistoric remains, dispersed, evidencing no clear concentration. Moreover, they are not common.

Perhaps the most interesting aspect of the site is that it presents yet a third example (along with 38CH1459 and 38CH1460) of very different results from shovel testing. The initial shovel testing at this site produced no tests with artifacts, while our subsequent study revealed that 22% of the tests were positive. Once again, we suggest that this study begins to provide some evidence of the nature variation to be expected in shovel testing from one survey to another — even when exactly the same methodology is used and the crews are equally diligent.

As a consequence, we concur with the original assessment for this site that it is not eligible for inclusion on the National Register.

Isolated Structure

In addition to these four sites, this study also encountered a relatively modern structure situated just outside the eastern survey boundaries (Figure 25). This structure was not given a site number since we cannot, at this time, determine whether it represents a component of a previously identified site or whether, with additional study, it will warrant its own site designation. Consequently, it is briefly mentioned in this study for the attention of future investigators.

The structure was found about 10 feet off the paved Fort Lamar Road, immediately before it terminates in several dirt drives. It is constructed of modern machine made bricks and measures 15 feet east-west by 35 feet north-south (Figures 31 and 32). The interior walls are stuccoed with a hard concrete mortar and the floor is sunken about a half foot below the exterior ground level. There is no evidence of a chimney, nor is there any indication of a doorway. The very limited about of brick rubble around the walls suggests that this was either a footing for a frame structure or that the brick has been extensively robbed.

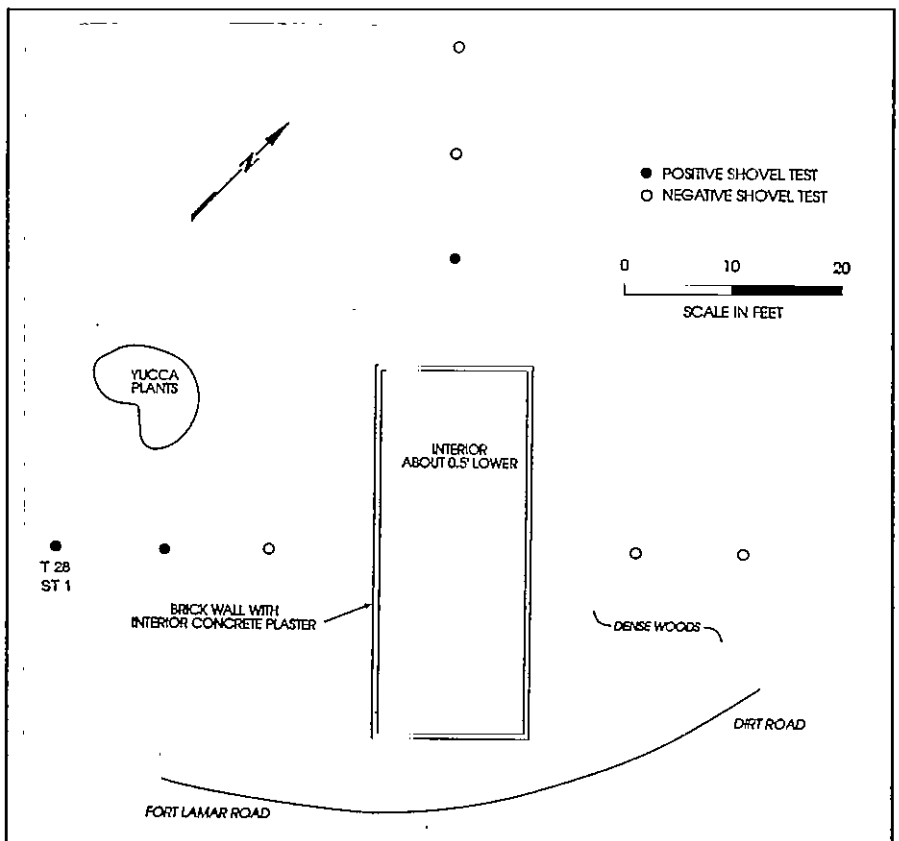


Figure 31. Isolated structure east of the survey boundary.

A series of seven shovel tests were excavated to the north, east, and west. These

Figure 32. Clearing the isolated structure, view to the east.

revealed no concentrations of materials around the structure. A positive test to the north yielded small brick fragments, a single nail, and a metal rod, while a positive test to the west produced a single prehistoric sherd and a fence staple.

The function of this structure is not known and it cannot be immediately identified on any of the maps, plats, or aerial photographs of the project area. We suspect that it dates from about 1940.

CONCLUSIONS

Cultural Resources Evaluation

The primary goals of this study were to identify and assess cultural resources which might be present on the 30 acre Secessionville North tract of Martschink Realty Company on James Island.

An initial phase of the study was an overview of historic resources. This work found that the parcel represented relatively isolated farmland associated with plantations dating at least back to the late eighteenth century. The main plantation settlement was consistently located in the area which is today private outparcels, with the early slave settlement situated along the south edge of the peninsula, west of the main settlement (Figure 10, off the survey tract, but perhaps on the portion of the Secessionville peninsula already approved for development). By the late antebellum the plantation slave settlement had been shifted northward, clustered onto about 4 acres of land within the survey tract (Figure 11). The remainder of the survey tract, during the antebellum, appears to have only been used for cultivation.

The Civil War brought dramatic changes to the Secessionville Peninsula. The study tract, however, seems to have been somewhat peripheral to most of these changes. Several maps are particularly important to our understanding of the project area. Capers' map from 1862 (Figure 14) is difficult to interpret given its obvious inaccuracies. It does show a series of four houses along the marsh edge, just north of Fort Lamar. Given the location of Gaillard's camp, these houses might have been further northwest, perhaps even being the slave houses shown on the antebellum plat. A correspondent's map in the New York *Herald* after the battle of Secessionville (not reproduced in this study, but available in Côté 1995:81) shows the "rebel camp" somewhat more accurately and fails to reveal any activity in the project area. Even this map, however, must be carefully considered given its obvious topographic distortions. Perhaps the best maps of Secessionville come from the end of the war, when Gillmore and his troops were mapping the site (Figures 18 and 19). These, while failing to reveal any structures in the project area, do clearly indicate that the earthworks extended northeastward from Fort Lamar for about 800 feet. Consequently, these earthworks would extend along the edge of the marsh from Fort Lamar to the first north-south windrow, encompassing the northwest field edge.

Associated with this overview of potential resources, the files of the South Carolina Institute of Archaeology and Anthropology were examined. Considerable research had been conducted on the project tract and four archaeological sites had been recorded by Brockington and Associates (38CH1458 – 38CH1461).

An inquiry was also made to the South Carolina Department of Archives and History, in compliance with their *Guidelines and Standards for Archaeological Investigations in South Carolina*. The purpose of this was to determine whether there were any previous architectural or historical surveys for the project area, or if there were any National Register sites recorded for the tract. We knew that the Secessionville Historic District incorporated the road frontage north of Fort Lamar Road, although most of the district extended south of the project area. Unfortunately, no response was received to our inquiry.

An archaeological field investigation was conducted which included the excavation of over 232 shovel tests on 38 transects. As a result of this study the previously identified four archaeological sites were re-examined.

Site 38CH1458 was found to cover an area measuring about 800 by 320 feet in the northeastern quadrant of the survey tract. Primarily prehistoric remains were encountered. These

spanned the period from about 500 B.C. through A.D. 1200 and were typically small and heavily eroded — characteristic of a plowzone context. No evidence of intact deposits, or features being plowed out of intact deposits, were encountered.

This survey consequently supports the conclusion of the original survey that this site does not appear eligible for inclusion on the National Register of Historic Places. No further investigations are recommended for 38CH1458.

Site 38CH1459 was found in the northwestern quadrant of the project, along the marsh edge and toward Fort Lamar (off the survey tract, but designated 38CH1271). This site covers an area measuring 650 by 400 feet. Virtually all of this site was found in the cultivated fields of the survey parcel. Materials recovered include a similar range in prehistoric materials, although historic items were more numerous, at least in the surface collections. The original survey attributed the bulk of the historic remains to the nearby presence of a postbellum tenant house. We believe that many of the recovered items are consistent with the Civil War occupation of the site, although we certainly can't discount the contribution from the tenant structure. There does not seem to be sufficient material in the fields to account for the houses shown by Capers', so we are inclined to believe that his map was simply distorted and these houses more likely represent the slave settlement discussed at 38CH1460 (below). No evidence of the earthworks thought to occur along the marsh edge are extant and no evidence of them (not unexpectedly) was found in the shovel tests.

This is certainly one of the more difficult sites to assess. The shovel testing data, combined with the metal detector survey, do not suggest that there are significant deposits at this location. The items which are present appear to be badly plow disturbed. We therefore concurred with the original survey recommendation that the site is not eligible for inclusion on the National Register. We do believe, however, that work in this area should be particularly attentive to the possibility that unexpected materials might be encountered and, if so, the S.C. SHPO should be immediately notified.

Site 38CH1460, found in the southeast corner of the parcel, is thought to represent the slave settlement shown on the 1841 plat of the plantation (Figure 11). The site area measures 400 by 224 feet and is "tucked" between marsh sloughs, making it relatively isolated and self-contained. It seems likely that this was less desirable land and the settlement was shifted to this location to free-up the better soils of the old settlement for cultivation (this may account for the relatively ambiguous signature in the southern survey area). Most of the materials recovered were consistent with a slave settlement from the late antebellum, although a small quantity of prehistoric items were also recovered.

This site was originally recommended as not eligible, but the current survey suggests that there may be intact deposits (the distribution of positive shovel tests, for example, closely agrees with the settlement layout as shown on the 1841 plat). Consequently, we recommend that this site is potentially eligible for inclusion on the National Register and recommend that additional testing be conducted. Specifically, we recommend that after this site is bush hogged, to allow better access, that close interval auger or shovel tests at 20 foot intervals be excavated in order to more precisely identify individual structure locations. In addition, we recommend the excavation of several 5-foot units in order to obtain a better collection of artifacts to gauge artifact density and diversity, as well as to explore the potential for sheet midden deposits and architectural features.

Site 38CH1461, found in the southwest quadrant of the site, measures 700 by 200 feet. While not as heavily overgrown as 38CH1460, it was still largely inaccessible without cutting transect lines. Nevertheless, the survey revealed a diffuse scatter of prehistoric and historic remains. The prehistoric items, like those from the other sites, span the Middle Woodland through Mississippian, although all are small and heavily worn. Again, this site exhibits materials which are entirely within the plowzone and are heavily fragmented. This historic artifacts from the current study are sparse and seemingly domestic in nature, while those from the original survey were all identified from a metal detector survey and

were military in origin.

Although the assemblage from this site is ambiguous, the historical documentation fails to reveal any significant use of this area. This suggests that the recovered materials may be scatters, further dispersed by the intensive cultivation of the parcel. In consequence, we concur with the original survey, which recommended this site as not eligible for inclusion on the National Register.

Certainly the investigations at 38CH1456 (Trinkley 1996) reveal that a potential for the unexpected exists. This previous work also points out that absent a concentrated military encampment, the types of features which might be encountered are somewhat ephemeral and almost impossible to identify, even using extensive stripping. Consequently, should any concentrations of artifacts or other cultural materials be found during development, either Chicora Foundation or the South Carolina Department of Archives and History should be immediately notified.

Other Sites

As noted in the preceding discussions, we did identify a relatively modern structure off the survey tract. This structure has not been assigned a site number since the area was not surveyed sufficiently well to determine whether this is part of any pre-existing site or is new. In addition, it has not been assessed by the current studies.

In addition, the historical research suggests that there are earthwork features associated with the Secessionville site north of 38CH1459, although no evidence of them has been found archaeologically. It seems likely that they were backfilled, like those south of Fort Lamar Road, sometime after the Civil War. Certainly all of the evidence points to the desire to maximize land for cultivation and likely these earthworks took up land which could otherwise be used for planting cotton. Based on the investigations at 38CH1456 (Trinkley 1996), it is unlikely that these earthworks, even if exposed, could provide significant information concerning Secessionville, the lives of the Confederate troops defending the site, or the science of military fortifications. Further, it is unlikely that the construction anticipated in the area within several hundred feet of the marsh is such that it will impact the buried remains of these earthworks, if they are present. The use of either slab construction or construction using piles, results in very limited surface disturbance. The footprint of the structures is also small in comparison to the lot size. Finally, the structures will be set back, probably at the very edge of any buried earthworks which may be present. Consequently, we do not recommend any additional investigation of these features.

Secondary Goals

One secondary goal of the project was to explore the association of the project area with the Civil War site of Secessionville. The historical investigations and the archaeological studies suggest that the bulk of the military occupation at Secessionville was likely situated at the eastern end of the peninsula, off the current survey tract. It is in this 12 acre parcel where a number of soldier huts were situated, the foot bridge connected Secessionville to Clark's Point, and where there are several still intact batteries. This particular area of Secessionville is of special importance since it has the potential to make major contributions concerning Confederate camp life, but it is not within the current study area.

An unexpected secondary research topic was the comparison of survey results from 1992 to those of the current study. In both cases very similar methodologies were used and we anticipated that the results should be very similar. Yet, as was noted in the earlier site discussions, there are very noticeable, and *seemingly* significant differences between the two studies.

At two of the four sites (38CH1458 and 38CH1459) the earlier study produced a greater percentage of positive shovel tests than our study (see Table 1). At two other sites the initial study produced a significantly lower proportion of positive tests than our work. Given the use of almost identical methodology, allowing the assumption that both survey crews were equally diligent, and unable to find any evidence of significant change in the survey tract between 1992

Table 1.
Percentage of positive shovel tests in the 1992 and 1996 surveys

Site	Original Survey	Current Survey	Difference
38CH1458	20	11	9
38CH1459	32	6	26
38CH1460	17	51	34
38CH1461	0	22	22

and 1996, the only possible conclusion is that we are observing the normal variation between shovel testing. In other words, we are obtaining some idea of the range of variation that we might reasonably expect from this particular methodology. As expected, at some sites the original study found more positive shovel tests than we encountered, while at other sites we encountered more positive tests that the earlier survey crew.

The differences in the percentage of positive shovel tests ranges from 9% to 34%, with a mean of 22.8 and a standard deviation of 9.

We believe these findings are significant, if only because they reveal the amount of variation which can be expected even from very competent and carefully executed studies. It is not intended to imply that shovel testing is an unacceptable methodology (it is frequently the only methodology available). Nor is it intended to imply that the results of shovel testing are not useful, although it should provide a caution regarding the reproducibility of the technique.

While others may have similar data, we have not seen them and it seems unlikely that given the nature of compliance archaeology a lot of archaeological sites are resurveyed using essentially identical techniques. Consequently, these data may be relatively unique. Further research is certainly appropriate.

SOURCES CITED

Allston, R.F.W.
1854 *Essay on Sea Coast Crops.* A.E. Miller, Charleston.

Anderson, David G.
1982 The Mattassee Lake Ceramic Artifact Assemblage. In *The Mattassee Lake Sites: Archaeological Investigations Along the Lower Santee River in the Coastal Plain of South Carolina*, edited by David G. Anderson, Charles E. Cantley, and A. Lee Novick, pp. 207-322. Commonwealth Associates, Inc., Jackson, Michigan. Submitted to the Charleston District Corps of Engineers, Charleston.

Brooks, Mark J. and James D. Scurry
1978 *An Intensive Archaeological Survey of Amoco Realty Property in Berkeley County, South Carolina with a Test of Two Subsistence-Settlement Hypotheses for the Prehistoric Period.* Research Manuscript Series 147. S.C. Institute of Archaeology and Anthropology, University of South Carolina.

Brooks, Mark J., Larry Lepionka, Ted A. Rathbun, and John Goldsborough
1982 *Preliminary Archaeological Investigations at the Callawassie Island Burial Mound (38BU19), Beaufort County, South Carolina.* Research Manuscript Series 185. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Burton, E. Milby
1970 *The Siege of Charleston, 1861-1865.* University of South Carolina Press, Columbia.

Butler, C.S.
1994 *Draft Report, Archaeological Survey and Testing of the Martschink Development Tract, Secessionville, Charleston County, South Carolina.* Brockington and Associates, Atlanta.

Coe, Joffre L.
1964 The Formative Cultures of the Carolina Piedmont. *Transactions of the American Philosophical Society* 54(5).

Cooke, C. Wythe
1936 *Geology of the Coastal Plain of South Carolina.* Bulletin 867. U.S. Geological Survey, Washington, D.C.

Côté, Richard N.
1995 *Jewel of the Cotton Fields: A History of Secessionville Manor.* Richard N. Côté and Associates, Mount Pleasant, South Carolina.

DePratter, Chester
1979 Ceramics. In The Anthropology of St. Catherines Island 2. The Refuge-Deptford Mortuary Complex, edited by David H. Thomas and Clark . Larsen, pp. 109-132. *Anthropological Papers of the American Museum of Natural History* 56(1).

Derting, Keith M., Sharon L. Pekrul, and Charles J. Rinehart
1991 *A Comprehensive Bibliography of*

South Carolina Archaeology. Research Manuscript 211. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Drury, Ian and Gerry Embleton
1993 *Confederate Infantryman 1861-1865*. Osprey Publishing, London.

Edgar, Walter B., editor
1972 *The Letterbook of Robert Pringle*. 2 vols. University of South Carolina Press, Columbia.

Fraser, Walter J., Jr.
1989 *Charleston! Charleston! The History of a Southern City*. University of South Carolina Press, Columbia.

Gillmore, Q.A.
1865 *Engineer and Artillery Operations Against the Defenses of Charleston Harbor in 1863*. D. Van Nostrand, New York.

1868 *Supplementary Report to Engineer and Artillery Operations Against the Defenses of Charleston Harbor in 1863*. D. Van Nostrand, New York.

Gragg, Rod
1994 A Bloody Half-Hour. *Civil War Times* 32(6).

Griffith, Paddy
1989 *Battle Tactics of the Civil War*. Yale University Press, New Haven.

Hagood, Johnson
1910 *Memoirs of the War of Secession*. The State Company, Columbia.

Hammond, Henry
1884 Report on Cotton Production of the State of South Carolina. In *Report on the Cotton Production in the United States*, edited by Eugene W. Hilgard, pp. 451-526. Census Office, Department of the Interior, Washington, D.C.

Hilliard, Sam B.
1984 *Atlas of Antebellum Southern Agriculture*. Louisiana State University, Baton Rouge.

Jones, J. William, editor
1884 Battle of Secessionville: Report of Colonel Johnson Haygood. *Southern Historical Society Papers* 12(1-2):63-65.

Judge, Christopher
1992 *A Report of Preliminary Archaeological Investigations at Secessionville/Fort Lamar (38CH1271), James Island, South Carolina*. South Carolina Department of Natural Resources, Heritage Trust Program, Columbia.

Kjerfve, Bjorn
1975 Climatology of Kiawah Island. In *Environmental Inventory of Kiawah Island*, edited by William M. Campbell and John Mark Dean, pp. C-1 - C-34. Environmental Research Center, Inc., Columbia.

Lefler, Hugh T., editor
1967 *Lawson's A New Voyage to Carolina*. University of North Carolina Press, Chapel Hill.

Lepionka, Larry, Donald Colquhoun, Rochelle Marrinan, David McCollum, Mark Brooks, John Foss, William Abbott, and Ramona Grunden
1983 *The Second Refuge Site, Location 22 (38JA61), Savannah National Wildlife Refuge, Jasper County, South Carolina*. University of South Carolina, Beaufort. Submitted to National Park Service, Inter-agency

Archaeological Services, Atlanta.

Mahan, D.H.
1864 *A Treatise on Field Fortifications*, 4th edition, revised. West and Johnson, Richmond.

Mathews, Thomas D., Frank W. Stapor, Jr., Charles R. Richter, John V. Miglarese, Michael D. McKenzie, and Lee R. Barclay
1980 *Ecological Characterization of the Sea Island Coastal Region of South Carolina and Georgia*, vol. 1. Office of Biological Services, Fish and Wildlife Service, Washington, D.C.

Michie, James L.
1977 *The Late Pleistocene Human Occupation of South Carolina*. Unpublished Honor's Thesis, Department of Anthropology, University of South Carolina, Columbia.

Miller, E.N., Jr.
1971 *Soil Survey of Charleston County, South Carolina*. U.S. Department of Agriculture, Soil Conservation Service, Washington, D.C.

Miller, George L.
1980 Classification and Economic Scaling of 19th Century Ceramics. *Historical Archaeology* 14:1-40.

1991 A Revised Set of CC Values for Classification and Economic Scaling of English Ceramics from 1787 to 1880. *Historical Archaeology* 25:1-25.

Mills, Robert
1972 *Statistics of South Carolina*. Reprinted. The Reprint Press, Spartanburg, South Carolina. Originally published 1826, Hurlbut and Lloyd, Charleston, South Carolina.

Noel Hume, Ivor
1970 *A Guide to Artifacts of Colonial America*. Alfred A. Knopf, New York.

Peterson, Drexel
1971 *Time and Settlement in the Archaeology of Groton Plantation, South Carolina*. Unpublished Ph.D. dissertation. Department of Anthropology, Harvard University, Cambridge.

Phelps, David S.
1983 Archaeology of the North Carolina Coast and Coastal Plain: Problems and Hypotheses. In *The Prehistory of North Carolina: An Archaeological Symposium*, edited by Mark A. Mathis and Jeffrey J. Crow, pp. 1-52. North Carolina Division of Archives and History, Raleigh.

Power, J. Tracy
1992 "An Affair of Outposts": The Battle of Secessionville, June 16, 1862. *Civil War History* 38(2):156-172.

Price, Cynthia
1979 *19th Century Ceramics in the Eastern Ozark Boarder Region*. Monograph Series 1. Center for Archaeological Research, Southwest Missouri University, Springfield.

Rosen, Robert
1982 *A Short History of Charleston*. Lexikos, San Francisco.

1994 *Confederate Charleston: An Illustrated History of the City and the People During the Civil War*. University of South Carolina Press, Columbia.

Salley, A.S., Jr. and R. Nicholas Olsberg
1973 *Warrants for Lands in South*

Carolina, 1672-1711. University of South Carolina Press, Columbia.

Sandifer, Paul A., John V. Miglarese, Dale R. Calder, John J. Manzi, and Lee A. Barclay
1980 *Ecological Characterization of the Sea Island Coastal Region of South Carolina and Georgia*, vol. 3. Office of Biological Services, Fish and Wildlife Service, Washington, D.C.

Schwartz, Gerald
1984 *A Woman Doctor's Civil War: Esther Hill Hawks' Diary*. University of South Carolina Press, Columbia.

Scurry, James D. and Mark J. Brooks
1980 *An Intensive Archaeological Survey of the South Carolina State Ports Authority's Belleview Plantation, Charleston, South Carolina*. Research Manuscript Series 158. S.C. Institute of Archaeology and Anthropology, University of South Carolina.

South, Stanley
1971 *Archaeology at the Charles Towne Site (38CH1) on Albemarle Point in South Carolina*. Research Manuscript Series 10. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

1972 *The Unabridged Version of Tribes of the Carolina Lowlands: Pedee-Sewee-Winyaw-Waccamaw-Cape Fear-Congaree-Wateree-Santee*. Research Manuscript Series 20. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

1977 *Method and Theory in Historical Archaeology*. Academic Press, New York.

Thomas, David H. and Clark S. Larsen
1979 *The Anthropology of St. Catherine's Island: The Refuge-Deptford Mortuary Complex*. Anthropological Papers 56(1). American Museum of Natural History, New York.

Trinkley, Michael
1980 *Investigation of the Woodland Period Along the South Carolina Coast*. Ph.D. dissertation, University of North Carolina at Chapel Hill. University Microfilms, Ann Arbor,

1981 *Studies of Three Woodland Period Sites in Beaufort County, South Carolina*. South Carolina Department of Highways and Public Transportation, Columbia.

1982 *A Summary Report of Excavations at Alligator Creek, Charleston County, South Carolina*. U.S.D.A., Forest Service, Columbia.

1983 Ceramics of the Central South Carolina Coast. *South Carolina Antiquities* 15:43-53.

1984 *The Archaeology of Sol Legare Island, Charleston County, South Carolina*. Research Series 1. Chicora Foundation, Inc., Columbia.

1996 *Management Summary of Archaeological Data Recovery at 38CH1456, Secessionville, Charleston County, South Carolina*. Research Contribution 194. Chicora Foundation, Inc., Columbia.

Trinkley, Michael, Missy Trushel, and David R. Lawrence
1995 *Archaeological Data Recovery Excavations at 38CH1219, Kiawah Island: "Another" Deptford and St.*

Catherines Shell Midden. Research Contribution 180. Chicora Foundation, Inc., Columbia.

Wiley, Bell Irvin
1978 *The Life of Johnny Reb: The Common Soldier of the Confederacy*. Louisiana State University Press, Baton Rouge.

Williams, Stephen, editor
1968 *The Waring Papers: The Collected Works of Antonio J. Waring, Jr.* Papers of the Peabody Museum of Archaeology and Ethnology 58. Harvard University, Cambridge.

Wilson, Homes H.
1982 *An Analysis of Skeletal Material from Bw°67, Brunswick County, North Carolina*. Unpublished MA thesis, Department of Anthropology, University of North Carolina, Chapel Hill.